

The CHEMIST AND DRUGGIST

For Retailer, Wholesaler and Manufacturer

DECEMBER 26 1953

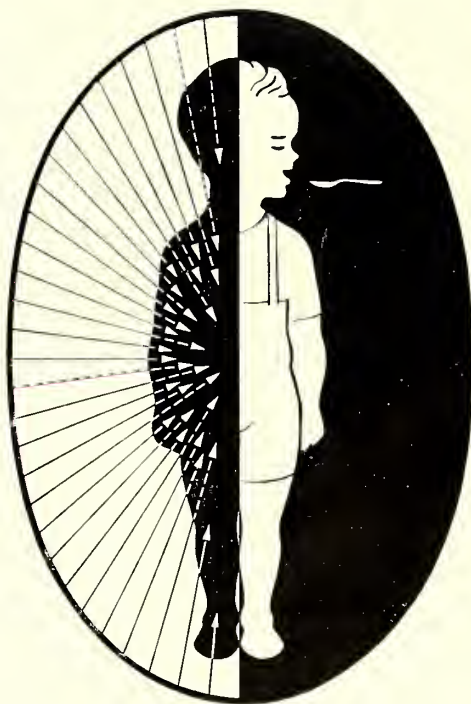
FORM ABSORPTION

'NEOLIN' is a flavoured suspension of benzethacil (benzyl-phenyl-ethylene-diamine dipenicillin - G), containing 200 units per large teaspoonful (5 ml.). It is stable at room temperature, and is ready for use without

'NEOLIN' has the advantage of being uniformly giving adequate and predictable blood-levels. A recent trial of benzethacil (*Brit. J. Clin. Pharmacol.* (1953) 805) on 101 children showed clinically adequate blood levels in all cases for at least 6 hours.

DOSE: The dose of 'NEOLIN' should be such as to give approximately three times the unitage of penicillin which would be given intramuscularly under the same conditions.

Available in bottles of 2 fl. oz.



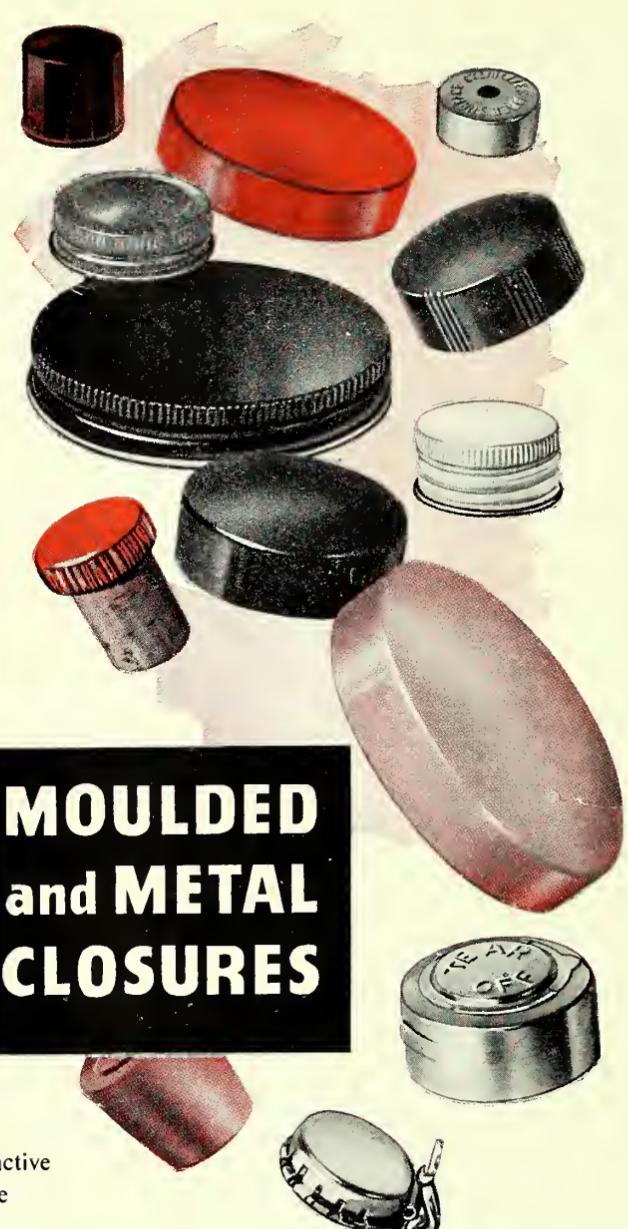
ORAL SUSPENSION

TRADE MARK **'NEOLIN'** BRAND
BENZETHACIL

Lilly
TRADE MARK

ELI LILLY AND COMPANY LIMITED . BASINGSTOKE . HANTS

*Let's
go
selling
with*




**MOULDED
and METAL
CLOSURES**

AN efficient closure can also be attractive and vital in the sales appeal of the whole package.

We can design and supply plain, fully decorated tinplate or aluminium closures, cork stoppers and plastic caps from black to the most delicate pastel shade, with exquisite embossing.

When the contents of the container have been used and the label washed off, a distinctive closure will go on telling your story.



UGB
CLOSURE DIVISION

UNITED GLASS BOTTLE MANUFACTURERS LTD

8 LEICESTER STREET, W.C.2. Telephone: GERRARD 8611 (18 LINES) Telegrams: UNGLABOMAN, LESQUARE, LONDON

The CHEMIST AND DRUGGIST

Volume 160

DECEMBER 26, 1953

No. 3853

P.A.T.A. Council Election RESULTS DECLARED

THE results of the Proprietary Articles Trade Association council election (see *C. & D.*, November 28, p. 529) have been declared.

The results are as follows:—

Retail Section

ELECTED			
CHALLINOR, C. S. ...	...	...	1,641
CROSS, A. R.	1,518
FOSTER, C. H.	1,508
STOYLE, W. T.	1,464
WALKER, G. H.	1,342

NOT ELECTED

Brown, H. R.	1,190
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Manufacturers' Section

ELECTED			
THE BRITISH DRUG HOUSES, LTD.	166
J. GROSSMITH & SON, LTD.	153
THOMAS MARNS, LTD.	143
JOHN STEEDMAN & CO.	139

NOT ELECTED

Carter, H. W., & Co., Ltd.	85
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"CLOSED SHOP"

R.P.U. lays complaint

AT a recent meeting of the council of the Registered Pharmacists' Union the general secretary (Mr. G. H. Armistage) gave a full report of the dispute in Bristol in which certain pharmacists in the Union had been involved. A rival union having obtained, under duress, a condition of employment diametrically opposed to the wishes of the pharmacists concerned, he had, on their behalf, laid a complaint to the Ministry of Labour and National Service. The council gave its full approval to the report and to his action in the matter, and gave him plenary powers, in the event of certain developments, to make contact with the union's solicitors and, if necessary, engage counsel on the pharmacists' behalf. The motions (see *C. & D.*, November 28, p. 544) were unanimously passed. During a debate on T.U.C. affiliation the secretary pointed out that of the 187 trade unions affiliated to the Congress, 116 had no political affiliation. They represented a membership nearly three times as great as that of the politically affiliated unions.

SULPHUR IMPORTS

Arrangements for private trading

FOLLOWING the recent announcement by the Ministry of Materials that private trading in sulphur and iron pyrites would be resumed on January 1, 1954 (*C. & D.*, December 19, p. 601) the Board of Trade announce that they are now prepared to consider appli-

cations for licences to import sulphur from any source from the above date. Imports of iron pyrites will be permitted from any country without the need to obtain an import licence. Full details are given in Notice to Importers No. 607.

LICENCE-FREE GOODS

Additions to List

ADDITIONS to the list of goods that may now be imported without licence from any country and changes in export licensing control have been announced by the Board of Trade. The following are among the raw materials which may be imported from any country without separate licence from December 17:—

Arseious oxide, boron, bristles, dipentene, quillaia bark, gum acacia (arabic), tragacanth, shellac, iodine, mercury, sodium chloride, beeswax and montan wax.

From the same date, agar, bismuth, glycerin, colophony resin, castor oil, pine tar, turpentine, *mono* sodium

glutamate and silicon may be imported under open general licence if consigned from and originating in any country other than:—

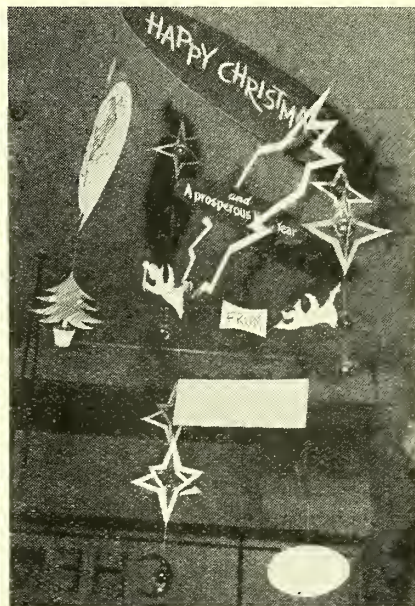
Bolivia, Canada, Colombia, Costa Rica, Cuba, Dominican Republic, El Salvador, Ecuador, French Somaliland, Guatemala, Haiti, Honduras, Liberia, Mexico, Nicaragua, Panama, Philippines, Tangier, United States, Venezuela.

From January 1, 1954, export licences will not be required for certain specified chemicals including acetic anhydride, acetone and sodium peroxide, unless they are destined for China, Hong Kong, Macao and Tibet.

ASCORBIC ACID NEEDS

M.R.C. report on investigation

THAT a daily intake of 30 mgm. of ascorbic acid for adults is necessary to protect against scurvy and allow a margin for individual variation has been established by workers of the Medical Research Council with the help of a number of volunteer subjects. That finding is in accordance with a recommendation of the League of Nations Health Organisation made in 1938, and is published in a report of the Council (Medical Research Council Special Report Series No. 280, H.M. Stationery Office, 17s. 6d.) published recently. Twenty volunteers were given a diet containing less than 1 mgm. vitamin C daily. Three received a vitamin C supplement of



ARTISTRY IN DISPLAY: Part of a Christmas perfumery window display (left) at the pharmacy of Mr. John Whitehead, M.P.S., London, N.21. Inside the shop, suspended from the ceiling, was the lively "mobile" shown at right, which carried the greetings of the proprietor and his staff to customers. The designer of the "mobile" and other decorations was Mr. George Thompson.

70 mgm. daily, seven received 10 mgm. and ten had no supplement. No signs of deficiency were observed in those receiving supplements during a period of observation of up to fourteen months. All ten volunteers receiving no supplement developed clinical signs of scurvy, though in varying degree. The first changes were enlargement and keratosis of the hair follicles (beginning after seventeen weeks of deprivation); later the enlarged hair follicles became haemorrhagic and formed the characteristic scorbutic spots. Scorbutic gum changes began to appear after twenty-six weeks of deprivation. Two volunteers developed cardiac complications. A dose of 10 mgm. of vitamin C daily given to six of the scorbutic volunteers removed the clinical signs of scurvy in all cases. Within one or two weeks the scorbutic spots began to fade and within from seven to nine weeks the appearance of the skin became normal. The gum lesions responded more slowly, restoration being complete within from ten to fourteen weeks. In the deprived group experimental wounds were made with the object of studying the process of wound healing. The scars left after such wounds had been excised became haemorrhagic at the height of scurvy. Examination of scar tissue by histological methods and breaking-strain tests gave abnormal findings in the deprived group but not in the two groups receiving a supplement.

POISONS LIST Impending Changes

STATUTORY Instruments giving effect to recommendations made to the Secretary of State by the Poisons Board are being prepared. It is proposed to make the following changes in the Poisons List, and in the Schedules to the Poisons Rules:—

Tris-(2-chloroethyl)-amine will be added to the series of nitrogen mustard compounds already included in Part I of the Poisons List, and in Schedules I and IV.

Rat and mouse preparations containing not more than 0.1 per cent. sodium nitrite will be exempted from the requirements of the Pharmacy and Poisons Act and the Poisons Rules.

The National Formulary will be given the same recognition in the Poisons Rules as the British Pharmacopœia and the British Pharmaceutical Codex.

SOFT DRINKS ORDER

Tonic and glucose types exempt

FOOD Standards (Soft Drinks) Order, 1953 (S.I. 1953, No. 1828), which came into force on December 20, replaces with certain modifications the standards of soft drinks prescribed by the Soft Drinks Order, 1947. Certain medicated and glucose beverages are exempt from the Order but the standards with certain modifications apply to soft drinks for consumption by diabetics, and to ginger beer and herbal and botanical beers. The description of drinks made from whole fresh oranges has been modified and references to non-alcoholic wine, and non-alcoholic cider, and non-alcoholic perry are omitted. The new Order should be read with the Food Standards (General Provisions) Order, 1944.

INFLUENZA DEATHS

Small rise

THERE were twenty-seven deaths from influenza including influenzal pneumonia in 160 great towns of England and Wales during the week ended December 12 compared with twelve in the previous week. The total for the year to date is 3,330.

LOCAL NEWS

Catholic Pharmaceutical Guild

THE Tyneside branch of the Catholic Pharmaceutical Guild held a meeting in Newcastle-on-Tyne on November 29. The programme included an address by Father Killin, Benediction, and after tea an exhibition of coloured photographs taken in Iceland and other parts of Europe by Mr. A. McGuckin (branch master).

Arrest in Shop Basement

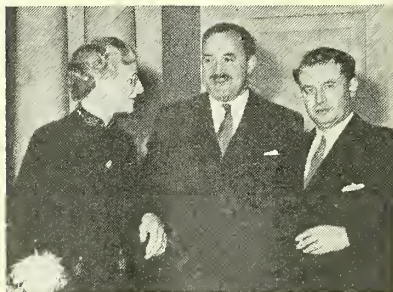
THE pharmacy of H. K. Woodward, Ltd., at 29 Commercial Street, Halifax, was surrounded by police on November 28 in consequence of a "999 call." Suspicious movements had been seen at the rear of the shop. The police caught two men hiding in the shop basement. In Halifax magistrate's court on November 30 they were formally charged with attempted shop-breaking, and remanded in custody until December 6.

Dartford Refresher Course

AT the request of the Dartford Branch of the Pharmaceutical Society the Dartford Technical College is organising a course of six postgraduate lectures for pharmacists to be held on consecutive Mondays commencing January 11, 1954. The lectures deal with developments in chemotherapy, muscle relaxants, anaesthetics, pharmacological research and immunisation over the past twenty years and are being illustrated with lantern slides and demonstrations. A fee of £1 is payable just before the first lecture attended.

Staff Dinner and Dance

A DINNER for the staff of Rentokil, Ltd., London, was held in London on December 11 and there was an attendance of 250. The occasion, as well as being one in a yearly series, celebrated the silver jubilee of the company's governing director (Miss E. Eades) who

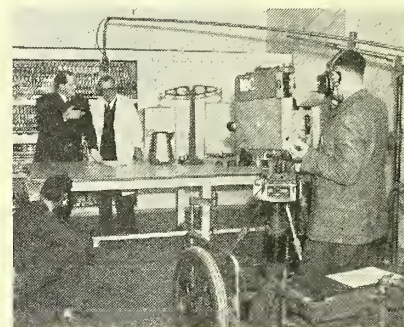


was presented with her portrait by Mr. W. M. Sproat (sales manager), acting on behalf of the whole staff. Mrs. J. Eades, Dr. N. E. Hickin and Mr. H. F. Mathews (directors) received respectively a bouquet of red carnations, a

piece of Royal Copenhagen porcelain and a brief case.

Cosmetic Manufacture on TV

A TELEVISION broadcast was made from the Brentford factory of Coty (England), Ltd., on December 2, under the title "Beauty in the Making." Processes in the manufacture of lipsticks and perfumes were explained. Richard Dimbleby, the commentator, was shown ingredients of perfumes, including essential oils,



absolutes, such as the jasmine absolute he was seen holding, neroli, myrrh, civet from Ethiopia, musk from the Tibetan deer, and aromatic chemicals. The company's cosmetic research chemist showed bottles being tested in a "fadeometer" to ensure that they are unaffected by exposure in shop windows. The production of lipstick and of face powders was also explained. The company had sent cards about the show to retailers selling their products.

IRISH NEWS

Pharmaceutical Society of Ireland

THE following changes of address were notified to the Council of the Pharmaceutical Society of Ireland recently:—

Miss M. Hazel, M.P.S.I., to Toronto, Canada; Mesdames M. T. Gormley, L.P.S.I., to Coill Dubh, Robertstown, Naas, co. Kildare; Margaret Moran, L.P.S.I., to 4 Harmony Row, Ennis, co. Clare; Messrs. Thomas Burke, L.P.S.I., to Borrisokane, co. Tipperary; A. B. Hensey, M.P.S.I., to 35 Foxfield Road, Raheny, Dublin; M. S. Dargan, M.P.S.I., to 13 Ailesbury Drive, Dublin; C. J. Cullen, M.P.S.I., to 48 Butterfield Avenue, Templeogue, co. Dublin; and W. O'Donnell, M.P.S.I., to 89 High Street, Kilkenny.

The following who submitted marriage certificates were granted change of name in the register: Mesdames Mary Grace Hogan (née O'Toole), M.P.S.I.; Margaret M. Moran (née Timmons), L.P.S.I. and M. T. Gormley (née Maguire), L.P.S.I. The reports of the House, Law, and Schools Committees were submitted and approved. THE REGISTRAR reported on the death of James Bartholomew Bolger, L.P.S.I.

Reduce 1s. Charge Plea Rejected

PLEAS for the reduction of the shilling charge on National Health Service prescriptions were rejected by the Minister of Health and Local Government (Dame Dehra Parker) in the Northern Ireland Parliament, on November 18. She had been asked by Dr. S. Rodgers to alleviate the hardship on old-age

pensioners and persons drawing unemployment and insurance benefits. The Minister, in her reply, said that in the year following the introduction of the charge the number of prescriptions dispensed fell by 13 per cent. During the year ended in May the reductions were in some months as much as 20 per cent., and the estimated annual saving was about £110,000. There was a further saving represented by the charges collected, making a total of £194,000. She also pointed out that amendments had been made in the National Assistance scheme to allow people receiving assistance to get refunds of the charges. Those who were not receiving assistance could apply for help if they were suffering hardship, and she did not see that any further action was called for. She was not prepared to accept the view that people had to pay more than a shilling in collecting the refund.

Examination Results

SUCCESSFUL candidates at the December examinations of the Pharmaceutical Society of Northern Ireland were:—

Preliminary scientific examination, Ian G. Bowman; Catherine Bradley; Thomas J. Crawford; George H. Dickie; Oonagh R. Herbert; Hugh H. Johnson; Eileen A. M. Johnston; Moreen M. Kells; Sheila K. Lobban; David N. McConnell; John L. McCo mack; Malachy S. McCullagh; James B. McElvogue; George McLarnon; David W. McMullan; Olive J. Mackintosh; Bridget E. Murphy; Hugh News; Patrick O'Doherty; Margaret F. F. Orr; Hilda M. Sherwood; John R. M. Sinton; Anna Sullivan; Robert Thompson.

Final qualifying examination, James J. Beattie; James G. Boyle; Patrick Boyle; Pauline J. Boyle; Brian P. H. Brooks; William G. S. Coulter; Patrick O'D. Fox; Samuel J. Gilmore; William J. Gracey; Peter J. Grist; May R. Hughes; Thomas J. Killick; Thomas Lee; Aubrey Levey; Andrew Little; Kennedy Lyle; Michael G. Lynch; Reginald J. McBride; Margaret M. McCann; Allen J. McClay; William D. McClements; Daniel McKavanagh; Leo M. Mason; Margaret M. C. Murphy; Felix T. O'Kane; Hugh D. Rice; Patrick A. Rooney; Benard Silver; Ann M. Treanor; Thomas W. Unsworth; Royland T. Watson; Edward Wells.

NEWS IN BRIEF

Blood Transfusion Booklet. — The Ministry of Health has produced an 8-p. booklet, "Your Blood and How it is Used to Save Life," describing the kinds of illnesses that can be treated by blood transfusion. Copies are made available at blood donor sessions.

Glass Manufacturers' Federation. — Dr. W. Maskill (joint managing director, Webb Corbett (Stourbridge), Ltd.) and Mr. L. E. Norton (managing director, City Glass Bottle Co., Ltd., and a director of Key Glassworks, Ltd.), have been elected *Chairman* and *vice-chairman* of the Glass Manufacturers' Federation for 1953-54.

Retail Sales in October. — Recently issued Board of Trade figures show that sales of chemists' goods by large retailers were 6 per cent. higher in October than in September and 8 per cent. higher than in October 1952. Comparative figures from independent retailers were 1 per cent. higher and 3 per cent. higher, respectively.

TOPICAL REFLECTIONS

By Xrayser

Two Brains Trusts

The holding of two "brains trusts" so near each other in time and place as those reported on p. 604 rather suggests that there is a season for these enterprises, at any rate in one locality. However that may be, events of this class are usually productive of statements that help to clear up difficulties. An important point was raised by Mr. H. W. Tomski at the Western Pharmacists' Association meeting, where he said that limitation of pharmacies would make their purchase price too high for individual pharmacists. That remark seems to need expansion; it may have received it at the meeting. One can realise that not every prospective buyer could afford to purchase a business in a main thoroughfare in one of our principal cities: but would not smaller pharmacies, with moderate overhead expenses, be available? Dr. A. Benjamin's suggestion of making warning labels more explicit for powerful medicines is a good one. Patients have been known to increase doses without their prescribers' sanction. This happened once in my recollection with a mixture containing liquor arsenicalis; the patient wondered why the medicine made him feel "queer." At the North London Pharmaceutical Association meeting, Mr. Norman Dewey commented appropriately on information that a medical student was unable, at an examination, to give the official name of any barbiturate used as a hypnotic. Probably that student had not been coached by a pharmacist.

Business Questions

Of the practical replies to questions on business problems on p. 618, the two that I have chosen for comment concern owners of small businesses more immediately than firms or companies running larger enterprises: these latter usually have accountants to supervise their book-keeping. One inquiry begins: "We wish to cut account work down to a minimum." That wish is no doubt shared by thousands of proprietors. But, as your contributor's reply shows, the more systematic the records, the better is the chemist able to deal with emergencies, foreseen or unforeseen. For small-scale working, elaboration may be dispensed with. The other inquiry begins: "How do you calculate the rate of stock turnover?" Accurate and detailed book-keeping is obviously needed here. I should like to underline the remark about the possibility of excessive stock being held. The temptation is easily yielded to, especially in such classes of goods as perfumery: I have seen it happen. One result is likely to be that some of the items become shop-soiled, and fail to make their proper prices.

A Little-known Reformer

To the names of Accum, Hassall and Wakley as pioneers in the nineteenth-century campaign against adulteration of foods and drugs may now be added that of John Postgate, the subject of a brief biography in Vol. 8 No. 8 of the United States *Food Drug Cosmetic Law Journal*. The author, Mr. G. K. Beeston has derived most or all of his material from privately owned documents. Postgate, born in Yorkshire in 1820, entered the grocery trade at the age of eleven; but, becoming disgusted with the adulteration prevalent, came out of it. He then became an apprentice to a firm of surgeons, obtained the L.S.A. diploma, and qualified as M.R.C.S. On settling in Birmingham in 1852 he soon distinguished himself as a strenuous advocate of legislation to suppress adulteration. A committee of inquiry before which he gave evidence presented its report in 1856: in the following year a Bill "for preventing the adulteration of articles of food and drink" was introduced in Parliament. Owing to strong opposition it was withdrawn. But in 1858 the well-known accident, resulting in the deaths of several people through contamination of peppermint lozenges with arsenic, shocked public opinion, and in 1860 an Act for obviating such mistakes was passed. The author of this interesting narrative has, in one sentence, apparently written colchicum in error for colocynth.

BRANCH AND ASSOCIATION MEETINGS

ROMFORD

Theatre Visit

NINETY-FOUR members and friends, including some from as far afield as Chelmsford, joined in the Annual Theatre outing held by the Romford Branch of the Pharmaceutical Society, and visited a London theatre recently. Refreshment boxes were provided for the return journey.

STIRLING

Sulphonamides and Antibiotics

THE Stirling and Central Scottish branch of the Pharmaceutical Society met in Stirling recently to hear Mr. D. G. Ardley (Pharmaceutical Specialities (May & Baker), Ltd.) give a talk on sulphonamides and antibiotics, the former subject being illustrated by a film.

HENDON AND EDGWARE

How Antibiotics Help Phagocytes

HENDON and Edgware Branch of the Pharmaceutical Society recently were shown a film only lately released by Parke, Davis & Co., Ltd., Hounslow. The film showed the effect of antibiotics on the ability of phagocytes to attack streptococci. After the showing Mr. C. Beaven (of Messrs. Parke, Davis) gave a lecture on antibiotics, dealing particularly with the bacterial spectra of the preparations.

MANCHESTER

Film Show

A MEETING of the Manchester branch, Guild of Public Pharmacists, was held in Manchester on November 20, Miss K. Applewhite in the chair, when a film show arranged in conjunction with Imperial Chemicals (Pharmaceuticals), Ltd., was given. The films shown were: "Marrow Puncture" which showed the correct technique for performing sternal puncture and a tailpiece showing how not to do it; "Dextraven" showing the large-scale production and clinical use of that plasma substitute; and "Game Harvest," an account of the company's research station, Fordingbridge, where diseases which attack game birds are studied.

THAMES VALLEY

Aseptic Technique

AT a meeting of the Thames Valley Pharmacists' Association held at Kingston-on-Thames recently, Mr. H. G. Moss in the chair, thirty-six members were present to hear Mr. B. J. Thomas (manager of the retail pharmacy of Allen & Hanburys, Ltd., London) speak on "Aseptic Dispensing Technique." Mr. THOMAS dealt at length with the problems facing a pharmacist setting up an aseptic department with particular reference to air filtration and pointed out that work for such a department would not come automatically but would be dependent on the pharmacist making known to local practitioners the facilities he could offer. He displayed some of the equipment used and suggested how a department might be built up in easy stages.

PORTSMOUTH

Pharmaceutical Committee's Work

MR. W. F. WILKINSON (secretary of the London Pharmaceutical Committee) addressed a meeting of the Portsmouth branch of the Pharmaceutical Society in Southsea on November 26.

MR. WILKINSON emphasised that the Pharmaceutical Committee was the only statutory body in the National Health Service composed entirely of pharmacists representing all contractors, and elected by the contractors. The committee conferred with the Executive Council, and had liaison with other bodies engaged in the National Health Service in its area. It had to maintain adequate pharmaceutical services in the area, and to advise all chemist contractors in cases of difficulty. The London Committee had to conduct fifty-two test prescriptions per month. The Committee was at the constant call of the National Pharmaceutical Union, the Pharmaceutical Society, and the Ministry of Health, who seemed to regard it as an information bureau.

EPSOM

Pharmacy's Role in Medicine

AT a meeting of the Epsom and Sutton Branch of the Pharmaceutical Society held in Epsom recently, MR. J. C. HANBURY gave an address on "The Future Role of Pharmacy in Medicine." He said that the more

one learned from scientific inquiry, the more one was puzzled by the gullibility of one's ancestors in the acceptance and use of medicines. Only in the past 100 years had doctors and chemists studied drugs to determine their suitability for various purposes. Vast strides had been made in the discovery of drugs in the past fifteen years and there is no reason to suppose that progress will be slower in the future. The 1914 British Pharmacopoeia heralded a new era with the introduction of biological products, five injections and the first synthetic organic compound.

Mr. Hanbury outlined the need for adequate research in new drugs and techniques, and the difficulty of preparing suitable, palatable, stable products for use by patients. Many pharmacists deplore the loss of the traditional pharmaceutical skill, but the present products are of such complexity that their preparation must be in the hands of a person with the means to deal with them. He spoke of the doctors' difficulties in dealing with the vast amount of medical literature they received. In the past few years it has become increasingly difficult for many to familiarise themselves fully with new preparations, and it had become desirable for the pharmacist to be capable of serving in an advisory capacity. Mr. Hanbury urged all pharmacists, particularly the young and recently qualified, to try to keep up to date with new drugs.

LOCAL DINNERS AND DANCES

BEDFORDSHIRE

"National Disease Service"

AT the twentieth annual dinner and dance of the Bedfordshire Branch of the Pharmaceutical Society held in Bedford on November 18 the toast "The Pharmaceutical Society" was proposed by DR. J. C. BOYDE (a past-chairman of the local division of the British Medical Association). In Dr. Boyde's view the National Health Service could be called the National disease service. Too much stress was being laid on cure and not enough on prevention. Surely that was the wrong approach. He remembered the time when a doctor or chemist could look back on a job well done and be satisfied with the result of his combination of skill and mental effort. Nowadays the trend was for the chemist to be a dispenser of ready-packed drugs, and for the doctor to be an intermediary in the patient's path to the consultant or specialist. Replying, MR. T. HESELTINE (president of the Society) paid tribute to the strength of the Branch.

The toast, "The Ladies and Guests," was proposed by MR. C. R. HANDSCOMB (chairman, Bedfordshire Pharmaceutical Committee). In his reply, MR. H. J. WELLER (chairman, Bedfordshire Executive Council) stated that the standard of dispensing in the county was extremely high.

The chairman of the Branch (Mr. J. Towell) presided at the dinner and the master of ceremonies for the dance that followed was Mr. T. Reid.

PLYMOUTH

Lord Mayor as Guest

THE Plymouth Branch of the Pharmaceutical Society held its annual dinner and dance in Plymouth on December 9. THE CHAIRMAN (Mr. Fernley Wallis) welcomed the lord mayor of Plymouth (Sir Clifford Tozer) and presented him with a cheque for £10 10s. donated by the Branch for the lord mayor's Christmas fund. He also announced that Branch members had raised £10 10s. for the Society's Benevolent Fund. Proposing "The Pharmaceutical Society," SIR CLIFFORD said that in 1952 the city's pharmacists (numbering about ninety) had dispensed more than 1,000,000 out of Britain's total of 200,000,000 National Health Service prescriptions. As tests had shown, pharmacists' work was of a high standard. There were no Devon or Cornwall members of the Society's Council. "Surely something was missing." The problem of the small trader was one which had to be solved. He could supply no solution at the moment but paid a tribute to the courage and determination of Mr. Wallis who was one of the private traders to open in the city centre. In his reply, MR. T. HESELTINE (president of the Society) said he was delighted to find that the lord mayor recognised the problem. The majority of small business men would find it very difficult to establish themselves in the city centre. If he judged right, however, the problem was not too big for the lord mayor.

"PLYMOUTH IS SOUND"

WAS THE OPINION OF THE SPEAKERS
AT THE

PLYMOUTH

BRANCH DINNER & DANCE
DECEMBER 9th 1953



"THE MEDICINE BOTTLE IS
NOW REPLACED BY CAPSULES"
AND PILLS IN PASTEL SHADES

FERNLEY WALLIS
CHAIRMAN
LOCAL BRANCH

MODEL
VILLAGE



KEN FREAD
SOCIAL
COMMITTEE



E. ADAMS
VICE-CHAIRMAN
LOCAL BRANCH

SCHOOL &
PHARMACY
LECTURES



W.F.E. EUSTACE
SECRETARY
PHARMACEUTICAL
COMMITTEE
AND LOCAL
BRANCH N.P.U.



"ETERNAL"
YOUTH!

**COLONEL
C. CONDY
U'REN**

IMMEDIATE PAST
CHAIRMAN
LOCAL BRANCH
AND CHAIRMAN
PHARMACEUTICAL
COMMITTEE



L.T. WARN
VICE CHAIRMAN
LOCAL N.P.U.
BRANCH



W.J. GALE
SOCIAL
SECRETARY

"BACKROOM
GIRL"
MRS. GALE
AND WORKING
PARTNER



"FRED ASTAIRE"
A.G.M. MADGE
BRANCH SECRETARY
"LIAISON
BETWEEN
PLYMOUTH
AND CORNWALL"



K.J. WADGE
SOCIAL
TREASURER.
CHAIRMAN, LOCAL BRANCH N.P.U.



"AN
EXCELLENT
BRANCH"
**T. "UBIQUE"
HESELTINE**
PRESIDENT,
PHARMACEUTICAL
SOCIETY —

LEFT WITH HIS PRIZES

SUNDERLAND PRIZEGIVING

Honours Course Under Way

THE pharmacy department of the Sunderland Technical College held its 1953 annual prize distribution in Sunderland recently. Mr. D. A. Wrangham (principal of the college) in the chair. Presenting his report on the 1952-53 session MR. F. H. OLIVER (head of the department) said that during the session the reorganisation of the department for the new qualifying examination of the Pharmaceutical Society had continued and the first course for the Bachelor of Pharmacy (Honours) degree commenced. The University of London had granted the department full recognition for preparing students for Part I of the new degree examination, for pharmaceutical chemistry and pharmacology in Part II, and also, subject to certain conditions which would be fulfilled when alterations to the department were complete, for pharmaceuticals and pharmacognosy.

During the session four students graduated B.Pharm. (London); one passed the Intermediate B.Pharm. examination; twenty-seven passed the qualifying examination of the Pharmaceutical Society; nine passed the Chemist and Druggist Qualifying examination; and eighteen passed the Society's Intermediate examination.

Provision had been made for the increased number of students, 183 (compared with 150 in the previous session), 120 of which are taking final courses, by the completion of a new pharmaceutical laboratory. The provision for teaching bacteriology and aseptic manipulation had been enhanced by the acquisition of a media kitchen and microbiology laboratory, while the aseptic laboratory has been divided to give a sterile area within which the atmosphere could be carefully controlled. A new pharmaceutical chemistry laboratory was almost completed and would be used for advanced work.

During the session three new prizes had been offered: One by Boots, Ltd., for first-year students of the final Ph.C. course; the Whittet prize in pharmaceutical chemistry, given by Mr. T. D. Whittet (chief pharmacist, University College Hospital, London, and a former student of the department); and the CHEMIST AND DRUGGIST prize for the best literary style in laboratory note books.

Notable features of the session were two sports meetings arranged between students from Sunderland and students of the Bradford School of Pharmacy. A party of students spent nearly a week in the Lake District together with a party of pharmacy students from the University of Nottingham. Pharmacy students played a full part in the College Rugby and cricket teams.

The chairman then introduced PROFESSOR H. BERRY (Dean, School of Pharmacy, University of London) who distributed the prizes for the 1952-53 session and afterwards spoke to the students on the future of pharmaceutical education. The prizes and their recipients were as follows:—

South Shields Pharmacists' Association for IA course: SHEILA L. ELGIE.

Middleton, for IB course: HENRY M. BROOKS.

Boots, Ltd., for IIA course: IAN M. SCOTT.

Pharmacy, IIB course: DAVID WRIGHT.

Bleasdale, for pharmaceutical chemistry in IIA course: IAN M. SCOTT.

Sunderland Branch chairman's, for IIA and IIB pharmacognosy and physiology: SYDNEY SOUTHWELL.

Evans Medical Supplies, Ltd., for IIA and IIB pharmacognosy: DAVID WRIGHT.

Mawson & Proctor Pharmaceuticals, Ltd., for pharmacognosy (2nd year): IRVING R. JOHNSTON.

Newcastle Branch for IIB pharmacognosy: DAVID WRIGHT.

cal chemistry: TOM H. CURRY.

Pharmacy, IIIA course: VERNON THOMPSON.

Gamlen, for IIIB course: KENNETH LEAK.

Hall, Forster & Co., Ltd., for IIIA and IIIB pharmacognosy and physiology: HAROLD PARKINSON.

Durham County Branch chairman's (1947-48), for IIIB practical pharmacognosy: KENNETH LEAK.

Tees-Side Branch for IIIA pharmacognosy: RALPH J. DAKIN.

Wilkinson & Simpson, Ltd., for IIIA and IIIB pharmacognosy: ALMA HALE.

Whittet, for IIB pharmacognosy: BRIAN DOBSON.

N.P.U. Sunderland Branch, for contribution to the social and cultural life of the College: MARGARET E. FURNESS.

THE CHEMIST AND DRUGGIST, for best laboratory notebook: TOM H. CURRY.

FORMULARY AND PHARMACOPŒIA

Younger Doctors' Preference for English Titles

At a meeting of the Manchester and Salford Branch of the Pharmaceutical Society held in Manchester on December 3, Professor H. Brindle (head of the department of pharmacy, Manchester University) gave an address on "Amendments to the National Formulary, 1952 and the British Pharmacopœia, 1953." PROFESSOR BRINDLE described how the Society and the British Medical Association were jointly responsible for the publication of the National Formulary. The "Notes for Prescribers" section, he said, had been praised and criticised by doctors. The criticisms were that it was too academic, and also too elementary, for the average practitioner. The increasing use of English titles also had a mixed reception. There he felt that mainly the opinions expressed were of the older doctors and pharmacists. He thought that recently qualified doctors preferred English titles and the recently qualified pharmacists were indifferent, and could use either with equal facility.

Recently a representative body of the B.M.A. passed a resolution that the Joint Formulary Committee should consist of medical practitioners only and that the academic medical men and the pharmacists should act merely in a consultative capacity. That overlooked two important points. The academic medical members practise in hospitals and treat large numbers of patients and kept up to date with new drugs; pharmacists were concerned with formulation and to suggest that they should have no actual say in its compilation is to go back to the kind of position which existed in 1898 when the B.P. was produced by doctors with pharmacists in consultation only.

There has been a demand from doctors for a formulary arranged in pharmacological instead of alphabetical order. Such a formulary is strongly opposed by most pharmacists and by some doctors. In the 1952 edition a compromise was effected by publishing a separate pharmacological classification of all the N.F. preparations. If the whole Formulary were so arranged a pharmacist would have to consult the index very frequently because he might have difficulty in finding a given preparation. The Notes for Prescribers

were almost as useful to pharmacists as they were to doctors: they should serve the purpose of keeping the pharmacist up-to-date with the uses of new drugs.

Professor Brindle then dealt with the structure of the British Pharmacopœia Commission and its Committees. The work of the nomenclature committee, he said, had received more criticism than that of any other. It had a difficult job to perform. The committee was formed largely to discourage imitators of newly developed drugs. Manufacturers were encouraged to apply to the committee for an approved name for their product. If eventually the substance were placed in the B.P. then the approved name would be used. The discoverer probably worked up a wide reputation for his product under the approved name and if it eventually reached B.P. or B.P.C. status he was still recognised as the chief manufacturer. If his price were reasonable he might remain almost the sole manufacturer as it might not be worth the while of other companies to manufacture and spend money making their product known. In coining a new name the committee was guided by certain principles. Its task was more difficult than that of a manufacturer coining a name because the latter sometimes liked to imply in the name that the product is useful for certain diseases or conditions and was not so particular about avoiding similarities.

N.H.S. STATISTICS

In BIRMINGHAM in 1952, 6,051,906 prescriptions were dispensed. The average cost per prescription was 231.61d.

In ENGLAND in January, 22,173,815 prescriptions (12,840,423 forms) were dispensed at a total cost of ingredients, fees and containers of £4,424,427.

In WALES during 1952, 15,531,633 prescriptions were dispensed at a total cost of £3,327,365. In 1949 the figures were 13,468,046 and £2,039,993 respectively.

In LANCASHIRE during 1952-53 out of 272 tests of dispensing, nineteen cases required action against the chemists. In four of fifty-three tests of appliances action against chemists was needed.

EIRE BENEVOLENT FUND DANCE

Dublin's Lord Mayor among the many Guests

THE 1953 annual dance in aid of the Benevolent Fund of the Pharmaceutical Society of Ireland was held in Dublin on December 1. The event was well patronised by Dublin and provincial pharmacists and their friends and the hall was crowded to capacity. The function was honoured by the attendance of the lord mayor of Dublin (Alderman B. Butler, T.D.). Mr. M. Costello (president of the Society) brought a large party including Mr. Garland Routt of the American Embassy, Messrs. M. H. Rooney (assistant editor, *Irish Independent*), and A. Donnelly (president, Veterinary Medical Association). Also at the president's tables were Messrs. H. W. Gamble (immediate past-president, Pharmaceutical Society of Northern Ireland), W. Gorman (secretary), H. P. Corrigan, J. G. Coleman (registrar of the Pharmaceutical Society of Ireland), L. G. Smith (president, Photographic Dealers' Association), J. Gleeson and H. G. Smith. Many members of the Council of the Society including Messrs. T. B. O'Sullivan, G. C. O'Neill, and P. Fullam, were present. The vice-president (Mr. P. F. McGrath) brought a large party as did Messrs. Percy Harwood and Lomax (Eire Proprietaries). The Irish Drug Association was represented by Messrs. T. R. Bourke (president) and B. R. Smith (secretary). The attendance also included many of the new licentiates who were at the conferring ceremony earlier in the afternoon (*C. & D.*, December 12, p. 587), and Messrs. J. K. Whelehan, Mullingar, G. Macauley and P. F. Farrell, Enniscorthy; T. O'Hanlon and

bers of the committee were Misses R. Dignan, J. P. Roche, D. Murphy, K. Hughes, M. Connelly, M. Costello, Conefrey, and H. Corrigan. Mr. J. Messrs. M. Dargan, P. F. McGrath, A. Roche was master of ceremonies and



DANCE COMMITTEE AND DISTINGUISHED GUESTS: In front row are Messrs. W. Gorman, James G. Coleman and Kevin Banks. In second row (from left) are Mr. H. Gamble (president, Pharmaceutical Society of Northern Ireland), the Acting Lady Mayoress of Dublin, Lord Mayor, and Mr. A. Donnelly. In third row are Messrs. T. R. Bourke (president, Irish Drug Association), Lyall G. Smith and P. F. McGrath (vice-president, Pharmaceutical Society of Ireland).



A Lord Mayor's party: Mr. James G. Coleman, the Lord Mayor, Acting Lady Mayoress, Mr. G. C. O'Neill and the president of the Society.



An American diplomat (Mr. Garr Routt) entertains Messrs. James Coleman, Herbert Gamble, Lyall Smith and Billy Gorman.

James G. Burke, Cork; McConnell (Aspro, Ltd.), Professor R. F. Timoney and party; Messrs. F. Roche, P. McAuliffe, A. Hennessey, Miss Malone (Irish Pharmaceuticals, Ltd.), Messrs. D. Roice, J. Smyth, M. Dargan, E. Attwooll, P. J. Fielding, and Dr. Eoin Dowling.

Committee Workers

The chairman of the committee responsible for the arrangements was Mr. Kevin Banks, secretary, Miss E. Smyth, and treasurers, Mr. J. Costello and Miss Cora Gaffney. Other mem-



Looking after the finances: Messrs. K. Banks (chairman), T. Costello (treasurer) and A. Dignan.

superintended the distribution of prizes and the arrangements for a raffle. During a supper interval the ladies of the committee did a brisk business selling tickets for the raffle, the first prize a well-filled Christmas hamper. The lady mayoress made the draw.

Pharmacists' Retreat

TWENTY-EIGHT members of the pharmacy branch of the St. Joseph's Young Priests' Society attended a week-end Enclosed Retreat held at the Jesuit Retreat House, Milltown Park, Dublin, recently.

THE WEEK IN PARLIAMENT

BY A MEMBER OF THE PRESS GALLERY, HOUSE OF COMMONS

SIR HERBERT WILLIAMS asked the Financial Secretary to the Treasury on December 15 whether he would consider repealing Section 26 of the Revenue Act, 1889, under which it was illegal to sell methylated spirit between 10 p.m. on Saturdays and 8 a.m. on the following Monday.

MR. J. A. BOYD-CARPENTER: I will re-examine the case for the maintenance of this ban in consultation with other interested Ministers.

Diphtheria Deaths

MR. IAIN MACLEOD (Minister of Health) gave MR. C. R. HOBSON on December 15 the following statistics concerning diphtheria immunisation:

Year	Number of deaths from diphtheria	Number of patients who died and had been immunised	Number of patients who died and had not been immunised
1948	134	6	128
1949	67	4	63
1950	35	7	28
1952	17	1	16

Health in African Colonies

MR. O. LYTTELTON (Secretary of State for the Colonies) told MR. R. S. RUSSELL on December 16 that there had been a general improvement in the health of the peoples of the African territories. The use of new drugs in certain areas had drastically reduced the incidence of leprosy. In Nigeria, mobile teams had been set up to deal speedily with outbreaks of epidemic diseases, and a large pilot scheme was in being to combat yaws. Trypanosomiasis had ceased to be a public health problem in the Gold Coast. In the Northern region of Nigeria a considerable area had also been cleared of the tsetse fly.

Prescription Costs

MR. G. LONGDEN asked the Minister of Health on December 17 whether he could give any information about the results of the steps he had taken to encourage doctors to reduce the cost of their prescribing in order to release funds for improvements elsewhere in the National Health Service.

MR. IAIN MACLEOD: Yes. While the average cost of a prescription has hitherto increased progressively every year since the Health Service started, I am glad to say that in August the estimated cost fell to about 1½d. less than in August 1952. This was maintained in September and there was a further reduction to 2d. in October.

I am glad to have this opportunity to thank the Joint Committee on Prescribing for their valuable work in classifying preparations and the General Medical Services Committee of the British Medical Association and the whole body of general practitioners for their co-operation.

MR. LONGDEN: Can you say whether this very satisfactory result follows on the advice given to general practitioners about prescribing drugs of doubtful therapeutic value?

MR. MACLEOD: It seems almost cer-

tain that the two are linked because the letter you refer to was sent out by my Chief Medical Officer on July 18 and the first drop was in August.

Prescription Levy

MISS P. HORNSBY-SMITH (Parliamentary Secretary to the Ministry of Health) told MR. E. FERNYHOUGH, on December 17, that in the largest hospitals, in congested and industrialised areas, there was no evidence to show that patients under the National Health Service who do not qualify for refund of the shilling prescription charge, or who are not in receipt of a supplementary pension, found it any great hardship to pay the charge.

COMPANY NEWS

Previous year's figures in parentheses

ETHICON SUTURE LABORATORIES, LTD.—The following appointments have been made to the board: Mr. J. Owen Dawson, B.Sc., Ph.C. (technical director) and Mr. John Ward, F.I.B.S.T. (director, U.K. sales).

REMINGTON RAND, LTD.—The following appointments have been made: Mr. S. D. Parker (permanent chairman of the board); Mr. J. S. Skinner (managing director); and Mr. George McLean (a director).

BRAND & CO., LTD.—A final dividend of 22 per cent., making 25 per cent. (against 15 per cent.) for the year ended September 30 is recommended. After charging all expenses the profit is £243,281 (£210,441) subject to tax of £170,500 (£146,000).

SOUTH AFRICAN DRUGGISTS, LTD.—Group trading profit for year ended June 30 was £321,597 (£278,020). After tax of £78,632 (£67,663); minority interests, £2,846 (£2,367), etc., the net balance was £181,466 (£154,986). Ordinary dividend proposed is 10 per cent. plus a bonus of 2½ per cent.

FARBWERKE HOECHST, A.G.—Net profits for 1952 were D.M.12,116,851—approximately £1·03 millions. The company with its four most important subsidiaries, achieved a turnover of D.M.736·1 millions—£62·8 millions—of which exports accounted for 21 per cent. During the first six months of 1953 turnover was D.M.424·4 millions—£36½ millions—with exports accounting for 25 per cent. of the total.

New Companies

P.C.=Private Company; R.O.=Registered Office

SMITH & NEPHEW, LTD. (P.C.).—Capital £100,000. To carry on the business of general merchants and traders, etc. Further particulars were given previously (see *C. & D.*, December 12, p. 582).

SALTNEY CHEMICALS, LTD. (P.C.).—Capital £5,000. To acquire the business of a chemical manufacturer carried on by Valerie A. C. Pitts at St. Marks Lane, Saltney, Ches. Directors: Valerie A. C. Pitts and Freda L. Stott. R.O.: 24 Mosley Street, Manchester.

BUSINESS CHANGES

MR. T. W. DUFFY, M.P.S.I., has transferred his business to St. Patrick Street, Castlereagh, co. Roscommon, Eire.

MRS. H. P. STANLEY, M.P.S.I., has acquired the pharmacy of Mr. T. W. Duffy, M.P.S.I., at Ballinlough, co. Roscommon, Eire.

THE BRITISH VETERINARY ASSOCIATION has removed to 7 Mansfield Street, Portland Place, London, W.1 (telephone: Museum 6541).

THE Liverpool distributing depot of The British Drug Houses, Ltd., has been transferred to new premises in Shaw Road, Speke, Liverpool, 19 (telephone: Hunts Cross 2164).

THE Directorate of Sulphuric Acid and Sulphur Supplies at Lacon House, Theobalds Road, London, W.C.1, is to close on December 31. From January 1, 1954, any inquiries on matters previously dealt with by the Directorate should be addressed to the Ministry of Materials, Branch 2A, Horse Guards Avenue, Whitehall, S.W.1.

Appointments

WINTHROP PRODUCTS, LTD., Africa House, Kingsway, London, W.C.2, have appointed Mr. G. Bird, M.P.S., their export sales manager.

THE ASSOCIATION OF BRITISH PHARMACEUTICAL INDUSTRY, Tavistock House, South, Tavistock Square, London, W.C.1, have appointed Mr. A. G. Shaw, Ph.C., D.B.A., their assistant secretary.

BIOREX LABORATORIES, LTD., 47 Exmouth Street, Rosebery Avenue, London, E.C.1, have appointed Mr. A. C. Weston, M.P.S., their representative in South London and Mr. E. Rowbottom their representative in North London. (Corrected note.)

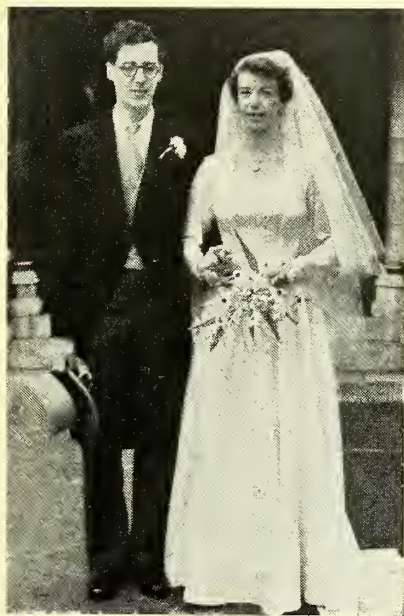
LEGAL REPORTS

Placed on Probation.—At Liverpool, on December 15, after two remands in custody for medical reports, Grace Ethelwyn Edwards, 1 Lime Grove, Liverpool, was placed on probation for twelve months on undertaking to go into hospital as a voluntary patient. She had pleaded guilty at a previous hearing to unlawfully procuring and stealing drugs while engaged as a ward nurse at Newsham General Hospital, Liverpool. She had then admitted taking drugs from the Dangerous Drugs cupboard in her ward to ease the pain from which she suffered.

Committed on Shop-breaking Charge.—At Hinckley, Leics, magistrates' court on December 7, Roger Campbell, a sales representative, Earls Court, London, and Arthur Anthony Rogers, antique dealer, Richmond, Surrey, appeared for the third time on charges including an attempt to break and enter the shop of Francis Hallam, Ltd., chemists, Castle Street, Hinckley. They were committed for trial at the next Leicester Assizes. Some panes of glass were stated to have been broken but the shop was not entered and nothing was stolen. The men were stated to have been arrested at the rear of the shop.

MARRIAGE

SMITH—HUTCHINSON.—At St. Margaret's Church, Westminster, on December 16, Graeme Dudley Smith, Ph.C., 2 Sidney Drive, Kingsley Holt,



Stoke-on-Trent, Staffs., to Jean Patricia Hutchinson, Ph.C., Lady Margaret Hall Settlement, 131 Kennington Road, London, S.E.11.

DEATHS

COUPER.—At 22 Midlothian Drive, Glasgow, on December 16, Mr. Robert John Ashcroft Couper, M.P.S. (managing director of Cockburn & Co., Ltd., wholesale and retail chemists, 130 Howard Street, Glasgow, C.1). Mr. Couper qualified in 1909.

EVANS.—On December 11, Mr. John Aneurin Evans, M.P.S., 42 High Street, Barry, Glam., aged sixty. Mr. Evans qualified in 1921.

FLEET.—At his home at Hillmorton Road, Rugby, recently, Mr. John Thomas Fleet, M.P.S., aged eighty-three. For many years Mr. Fleet owned a business in Sheep Street, Rugby. He was one of Rugby's original aldermen, and the second mayor of the borough. He retired from the borough council in 1948, after twenty-seven years' service. Mr. Fleet was born at Birtley, Durham. He went to Rugby in 1894, three years after qualifying, and acquired his business in Sheep Street, which was one of the oldest in the country. Mr. Fleet later became a director of Wyleys, Ltd., Coventry, and was for some years vice-chairman of the Rugby Gas Co., and up to the time of his death a director of the local newspaper publishers, Rugby Advertiser, Ltd.

GUEST.—Recently, Mr. George Ernest Guest, Beech House, High Ackworth, Pontefract, suddenly, aged seventy-six.

HARRIS.—Recently, Miss Dorothy Harris, M.P.S., Avon Lodge, Arden Road, Dorridge, Birmingham. Miss Harris qualified in 1917.

TRADE NOTES

Spun Rayon Yarns.—Fine Spinners & Doublers, Ltd., St. James's Square, Manchester, 2, invite inquiries for spun rayon yarns for towels, tapes, bandages, gauze lint and plasters.

Own-name Packs.—Arthur H. Cox & Co., Ltd., Brighton, 7, invite chemists to write for particulars and samples of their "chemist's own brand" scheme for the supply of tablets, etc.

Now in Western Germany.—Ibica, The Immune-Biological Institute (Prof. Dr. Enderlein & Co., Berlin) has removed its seat to Aumühle, nr. Hamburg, Germany. Preparations of the Institute are supplied only against prescription.

Supplies Increasing.—Abbott Laboratories, Ltd., Greenford, Middlesex, state that Erythrocin (erythromycin) is available to any hospital now and expected to be available to all medical practitioners within a few weeks. The pack is a bottle of twenty-five 100-mgm. tablets.

Change of Category.—Medo-Chemicals, Ltd., 178 Pentonville Road, London, N.1, state that their speciality Hormofemin compound has been reclassified by the Cohen Committee from category 6 to category 4, and can therefore again be freely prescribed on EC10 forms.

Packaging Exhibition, 1955.—The next National Packaging Exhibition is being held at Olympia, London, January 18—28, 1955. The exhibition is organised by Provincial Exhibitions, Ltd., City Hall, Deansgate, Manchester, in collaboration with the Institute of Packaging.

Through the Iron Curtain.—The County Chemical Co., Ltd., Shirley, Birmingham, state that Chemico smooth-paste cleanser is used extensively in British embassies abroad, including those behind the Iron Curtain, to which supplies are sent under the protection given by diplomatic privilege.

Sole British Agents.—The sole agents and sole importers in the United Kingdom for Riedel-de Haen, A.G. (20a), Seelze, nr. Hanover, Germany, makers of fine, industrial, and research chemicals, are Rubber Industries & Sherman Chemicals, Ltd., Downham Mills, Tottenham, London, N.17.

Scotch Ginger Punch.—Jefferson's concentrated Scotch ginger punch, manufactured by Ford Jackson & Co. (Sales), Ltd., 129 Carlton Street, Castleford, Yorks, is attractively packed in a bottle of unusual shape. The makers describe it as smooth and mellow and claim that it provides "a warming drink in winter, a refreshing drink in summer."

De Luxe Electric Blankets.—Pifco, Ltd., Pifco House, Watling Street Manchester, 4, are now in production of de luxe electric blankets in single-bed and double-bed sizes. They conform to the British Standard draft specification No. 4702. No thermostat is required, there are no moving parts liable to failure

in service, and the blankets are radio and television interference-free.

Projecting Colour Transparencies.—For the projection of colour transparencies the G.B.-Kershaw K250 film-strip and slide projector has attractive features. It operates in two picture sizes (18 x 24 mm. and 24 x 36 mm.) on standard 35-mm. film, and film and slide carriers are instantly interchangeable. The distributors are G. B. Equipments, Ltd., photographic and optical division, 37 Mortimer Street, London, W.1.

Abbey Appeal Scheme.—With the co-operation of the banks, the Westminster Abbey Appeal Fund is operating a year-end "shillings and pence" scheme, under which, on instructions from any person with an account at a bank, the odd shillings and pence credited to him as the books close on December 31 (or, in the event of the account being overdrawn, the sum of ten shillings) are transferred to the Fund for restoration of the Abbey. Leaflets explaining the scheme and including an instruction to the bank may be obtained from the Fund at Abbey House, London, S.W.1.

Trading Starts in New Year.—British Visqueen Ltd., the company formed jointly by Imperial Chemical Industries, Ltd., and the Visking Corporation, Chicago, Illinois, U.S.A., to manufacture polythene film, commences trading during February 1954. Its products will include Visqueen C film (to overcome the problem of ink adhesion to polythene film). Until new plant and offices at Stevenage are completed in July or August 1954, the company's headquarters are at 94 Tewin Road, Welwyn Garden City; the plant is in temporary premises at Hillhouse, Lanes.

Diphtheria Pertussis Prophylactic.—For the immunisation of children against diphtheria and whooping cough there is available diphtheria pertussis prophylactic Lister. Like the other products of the Lister Institute of Preventive Medicine it is obtainable through the 7 Vere Street, London, W.1, dépôt of Allen & Hanburys, Ltd. The prophylactic contains in each mil 25 Lf. purified diphtheria formol toxoid and 20,000 million *Hæmophilus pertussis*, together with 1/10,000 thiomersalate as preservative. It is issued in box of three 1-ml ampoules and in 10-ml rubber-capped bottle.

Sputum Disinfectant.—Milton Antiseptic, Ltd., 345 Gray's Inn Road, London, W.C.1, are making available to pharmacists on prescription their speciality Milsol, recently the subject of two papers (by Baker and Stradling) published in the *Lancet* and dealing with the use of Milsol for tuberculous sputum disposal. Reprints of the papers will be available shortly, and suitable literature based on the information they give is in course of preparation. Messrs. Milton claim that Milsol is the only disinfectant capable of dealing with the tubercle bacillus in a mass of sputum. It dissolves the mucus and kills the tubercle bacilli within thirty minutes.

SYMPOSIUM ON PYROGENS

Joint Meeting of Pharmaceutical Society and Society of Public Analysts

FIVE papers on various aspects of pyrogens were presented at a symposium organised jointly by the Pharmaceutical Society of Great Britain and Society of Public Analysts and Other Analytical Chemists and held in London on December 11. Professor J. P. Todd, Glasgow, presided before the interval and gave an introductory address. He pointed out that pyrogens were now recognised as being bacterial polysaccharides and that they occurred free in liquid culture media. They could now be obtained reasonably pure, if in small quantities. The assay processes of the British and United States Pharmacopœias were really only limit tests.

History and Developments

The first paper was by MR. T. D. WHITTET (University College Hospital Medical School) on the occurrence and importance of pyrogens. Mr. Whittet reviewed the development of knowledge of the compounds since the discovery by Billroth in 1865 that injections of distilled water could cause a rise in temperature. The name "pyrogen" had been given by Burdon-Sanderson (professor of physiology at U.C.H. in 1875), to a fever-producing substance he had prepared from putrid meat and had shown to be free from living bacteria. Hart and Penfold had shown that fevers due to salt, Salvarsan and many other substances given intravenously were all due to contamination of water used in preparing the injections, that freshly distilled water was apyrogenic, but that it rapidly becomes contaminated with fever-producing material on standing. The classical work of Siebert had finally established that all of the so-called injection fevers were due to the presence in the distilled water used for injection of a filterable, heat-stable pyrogen of bacterial origin. The need for eliminating pyrogens was, he said, of vital importance to both hospital and manufacturing pharmacists, though there had been conflicting opinions about the type of precautions necessary in preparing parental injections. On the one hand there was the pharmacist who said he had been making infusion fluids for years without any special precautions and without complaints of untoward reactions. On the other there was the worker so obsessed with the danger of pyrogens that he considered parenteral infusion fluids could only be prepared by manufacturers with strict controls at every stage. That type of mentality had led to the situation, recently mentioned in the *C. & D.*, where a hospital authority had decreed that all infusion fluids used in that hospital must be bought from manufacturers. The reasonable view lay between those two extremes. Apyrogenic solutions could be prepared with relatively simple apparatus in any well equipped pharmacy if adequate precautions were taken and a good, well baffled still and pure drugs were available; but some degree of control might be advisable in the absence of standards for pyrogen-free

drugs. Mr. Whittet listed sources of pyrogenic contamination and discussed methods for their elimination. He gave suggestions for simplifying the preparation of apyrogenic solutions in hospitals.

MR. K. L. SMITH (bio-assay division, Boots Pure Drug Co., Ltd.) read the second paper, which was on "Routine Testing for Pyrogens." Mr. Smith indicated that the tests for freedom of pyrogens prescribed by the British Pharmacopœia for the antibiotics and for heparin and calcium gluconate could readily be translated to the products from large-scale manufacture. Some difficulty arose with water for injection, prepared for sale as such or for the manufacture of other B.P. preparations. A system of continued sampling, that could be related to discrete batches, was called for. Where the quality of the water delivered by the still was under constant inspection, certain preparations intended for injection in small volumes could be safely assumed to be pyrogen-free without test. Under those conditions it became necessary to examine solutions intended for transfusion in their finished state, a procedure that had much to commend it. Mr. Smith described the manipulative procedures necessary in large-scale examinations, and gave an indication of the frequency with which pyrogenic samples were observed. In examination of some 400 packs of litres and ½-litres of water for injection, glucose saline, and normal saline, seven were considered to fail the test.

The third paper was entitled "The Leucocyte Response in the Rabbit to the Pyrogen from *Proteus vulgaris* (Part I, Mononuclear and Temperature Responses)." It was by Miss M. Dawson, and Professor J. P. Todd (Glasgow Royal Technical College), and was read by MISS DAWSON. The paper described experimental work in investigating rabbit leucocyte response to a freeze-dried pyrogen from *P. vulgaris*. The relative percentage of small lymphocytes fell, the maximum fall occurring about three hours after injection. The fall was expressed as a percentage of the initial level. At a high dose level the small lymphocyte percentage fall had a coefficient of variation of 20 per cent. and the temperature rise a coefficient of 39 per cent. At two lower dose levels the responses were of equal variability. The small lymphocyte response remained quantitative over the three doses but the temperature response failed to distinguish between the middle and high doses.

"Rabbit Responses to Human Threshold Doses of a Bacterial Pyrogen" was the title of a paper by DR. J. G. DARE (department of pharmacology, University of Leeds). The minimal effective dose of a pyrogen prepared from *P. vulgaris* had been determined for a large group of healthy young adults. The rabbit's dose/temperature-response curves to the same preparation in several different experimental circumstances had also been deter-

mined. The curves were from rabbits previously untreated and from rabbits in which tolerance to pyrogens had been developed. The expectations of correctly detecting the presence of the pyrogen by the Pharmacopœial test in those circumstances at various doses within the minimal effective dose range in man had been calculated. The results were discussed.

"Standards of Pyrogenic Activity" were dealt with by DR. W. L. M. PERRY (National Institute for Medical Research), who said that the purposes of providing reference standards of pyrogenic activity were control of preparations intended to produce hyperthermia in man; control of pyrogenic contamination of other biological products intended for parenteral use in man; and furtherance of research on the nature and action of pyrogens. The World Health Organisation was studying the possibility of providing an International Reference preparation of pyrogen for those purposes. He drew attention to some of the difficulties of making and using such a preparation.

About 180 people attended the symposium.

A summing-up was given by Dr. H. O. J. Collier, who presided after the interval.

PERSONALITIES

DR. W. MITCHELL (chief chemist, Stafford Allen & Sons, Ltd., London, and chairman of the fine chemicals group, Society of Chemical Industry) was knocked down by a motor-cycle in Paris recently. He is now in Hampstead General Hospital, London, N.W.3, where it is expected that he will remain for some time, though his progress is understood to be satisfactory.

MR. A. G. SHAW, Ph.C., D.B.A. (chief pharmacist, Kingston Hospital), who has been appointed assistant secretary to the Association of British Pharmaceutical Industry (see p. 632), qualified as a chemist and druggist in 1938 and as a pharmaceutical chemist in 1939 and gained the Diploma in Biochemical Analysis in 1943. Since 1939 he has been engaged in hospital pharmacy and has held appointments at hospitals in Edmonton and Edgware, Middlesex, and Kingston-on-Thames. Mr. Shaw joined the council of the Guild of Public Pharmacists in 1942, has held a number of offices including those of registrar, deputy secretary and president and has represented the Guild on the Joint Negotiating Committee (Hospital Staffs), the Pharmaceutical Whitley Council and other councils. In 1951 he became staff-side and joint secretary to Committee C of the Pharmaceutical Whitley Council and a representative of that Council on the General Whitley Council for the Health Services. He is also a member of the County of Surrey Pharmaceutical Committee. He was appointed to his present post at Kingston in 1948 and takes up duties with the Association on January 1, 1954.

PRACTICAL ASPECTS OF PYROGENS

THE extent of the interest in pyrogens was demonstrated by the large attendance and vigorous discussion at the symposium on December 11 (see opposite page). Generalisations about pyrogens are difficult because no one knows precisely what they are. The generally accepted notion is that they are substances of microbiological origin which on injection into animals or man produce a marked rise in temperature with shivering attacks. The clinical picture of the action of pyrogens in volunteers was vividly drawn by Dr. Dare, who gave the impression that the response was of the "all-or-none" type. Even when the dose of pyrogen had been reduced in his experiments to give an incidence of 5 per cent. of attacks in his volunteers, the attack in those subjects was marked. They felt ill, had an ashen grey colour, shivered, had a sharp rise in temperature and were only too glad to end the experiment with a cup of tea and an aspirin tablet.

The Pharmacopœia Tests

The British and United States Pharmacopœias require water for injection to be pyrogen-free, and a test is described under which the material is injected into rabbits and the rectal temperature measured. Solutions that bring about a rise of 0.6 per cent. or more are regarded as unfit for use. According to Dare, the details of the U.S.P. test are more exacting than those of the B.P., which he demonstrated would let through about 4 per cent. of samples with enough pyrogen in them to produce a reaction in man.

Manufacturing laboratories seem to apply their own tests, more rigorous than that of the B.P. The frequency with which batches are found contaminated with pyrogen is low—of the order of less than 1 per cent. according to one manufacturer—so that the risk that a batch containing pyrogen will be passed where the B.P. test is used is not high.

Professor Todd and Miss Dawson, noting a correlation between pyrogenicity and leucopenia in test animals, suggested a white-cell count test as complementary or alternative to the rabbits' rectal temperature test. It may be argued that leucopenia is not a necessary concomitant of pyrexia and that the white-cell count should therefore not be taken as conclusive evidence that a solution is pyrogenic. The method suggested is, however, likely to be useful where the solution to be tested may have properties that would mask a pyrogenic effect in the rabbit, such as one with an action on the heat-regulating centre. It might well be dangerous to inject such a solution into the patient, even though its antipyretic properties obscured the pyrexia in a test animal.

The pyrexial reaction itself resembles an anaphylactic response such as that encountered when foreign protein is injected, and the question arises whether the pyrogens are antigenic. Information at present available suggests that for the most part antigenic properties are not found. Yet Dr. W. L. M. Perry told how, in the laboratories of the Medical Research Council, it had been possible to produce antibodies that would precipitate pyrogens from serum (though the antibody did not protect an animal from the pyrexial effect of pyrogens). He also revealed that the M.R.C. is engaged on an attempt to set up international standards for pyrogens. Being potent substances with pharmacological uses, they need to be standardised as to preparation and potency if used in the treatment of disease.

The source of pyrogens in parenteral solutions is obscure, though a number of possibilities have been suggested. Obviously, gross contamination of the solution by airborne, pyrogen-producing bacteria is the greatest risk. For that reason, stills producing water intended for injection must be so constructed that they do not allow the passage of entrained droplets into the distillate. Prolonged storage

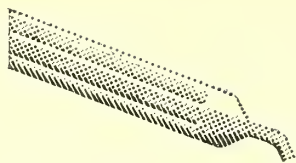
of the water provides a further risk of contamination, and it is generally recommended both that it should be collected in closed sterilised vessels and that the solutions made from it should be packed in their final containers and sterilised with a minimum of delay. In hospital practice the whole process, from distilling to final autoclaving, should take place on the same day. That is probably the greatest single safeguard. A battery of five- or ten-litre aspirators that can be cleansed with dilute hypochlorite solution provide a convenient method of collecting the distillate. Rubber tubing is a common source of contamination of injectable fluids. The contaminant may not be of microbial origin, but may nevertheless cause rigors in the patient. For that reason, polythene tubing is to be preferred wherever possible.

It is known that, on storage, pyrogenic solutions become less so, and that on subsequent autoclaving the pyrogenicity returns. That strongly suggests that the pyrogen is adsorbed on to the glass or into the material of the closure. Hence the strictest care should be taken in cleansing containers. Hot soapy water or other detergent should be used with a brush, and the brush should be non-abrasive to the glass surface, otherwise flaking is likely to occur in the final autoclaving. The detergent wash should be followed by vigorous jet washing with tap water, and finally with freshly distilled water. Filling and autoclaving should follow with the minimum of delay.

It has been reported that certain materials, such as sodium chloride, dextrose, sodium citrate, may be contaminated with pyrogens in the dry state. With any such, the most meticulous care in the preparation of the solutions is vitiated. Contamination of that kind is normally outside the control of the pharmacist preparing the solutions, and is a matter for the attention of the manufacturers of the substances themselves. With clean, dry conditions the probability of contamination is greatly reduced.

Final Check

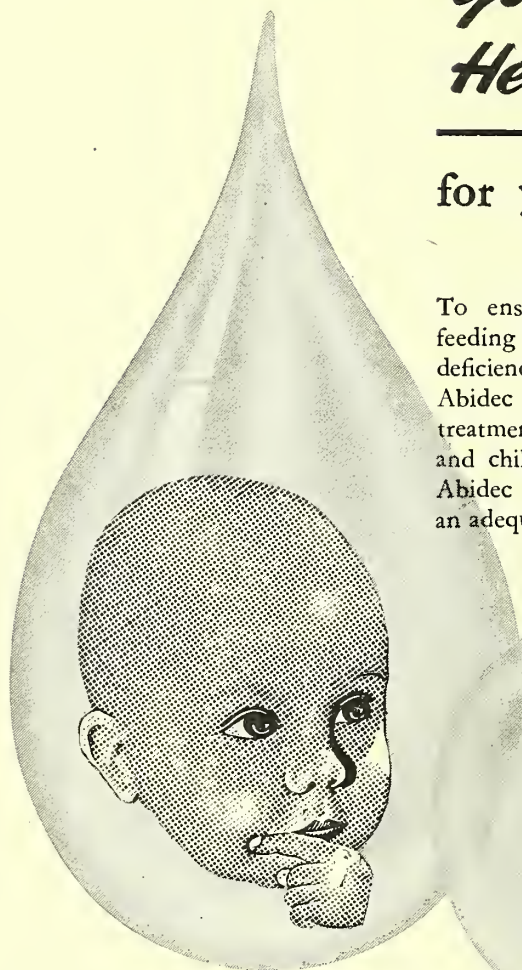
The final check on the solutions, however, must be a test for pyrogens on the finished product. The test is an expensive one, costing probably £5 to £12 according to the circumstances in which it is arranged. To be logical, a pyrogen test should be performed both on the solutions and on the apparatus used for administering it: it is even more likely that rigors encountered clinically arise from traces of foreign protein in the needles and giving sets than from the infusion fluids. That raises the question whether in practical terms the pharmacist preparing injectable solutions in a hospital should have pyrogen tests performed on every batch. He is certainly exposed to criticism if no tests whatever are made. On the other hand the incidence of rigors attributable to the solutions is very low, probably owing to the conditions attainable in the hospital pharmacy and to the elimination of long waiting time and exposure during the process. A suggestion recently made in these columns that the Pharmaceutical Society might open a reference laboratory to which samples might be sent for pyrogen tests has much to commend it. Occasional tests would at least ensure that the techniques employed were such as to exclude serious risk of contamination with pyrogen. Moreover, manufacturers of the chemicals used, who are not necessarily otherwise interested in biological testing, would be able to obtain independent certification of batches intended for the preparation of injectable fluids. With these two safeguards, and bearing in mind that even at the present time it is rare to find a batch of transfusion fluid challenged by the clinicians on the grounds of pyrogenicity, hospital pharmacists would have reasonable assurance that their preparations were free from contamination.



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TELEGRAMS: "CHEMICUS ESTRAND, LONDON"

Standards for Animal Medicines

AN event unique in the annals of British pharmacy—and for that matter of world pharmacy—occurred on December 21 in the publication of the British Veterinary Codex (see p. 635), prepared at the direction of the Council of the Pharmaceutical Society of Great Britain in collaboration with the Royal College of Veterinary Surgeons and British Veterinary Association.

In the past there has been no official book of standards for the drugs used in veterinary medicine. Many drugs have, of course, human applications and are therefore to be found amongst the monographs of the British Pharmacopoeia or of the British Pharmaceutical Codex. Others, by no means few in number, are used only in animal patients. For those, no standards of quality have been in existence, and the need for standards has become increasingly recognised during recent years with the rapid advances that have been made in veterinary science. For those reasons the Council of the Pharmaceutical Society appointed the British Veterinary Codex Committee about three and a half years ago and entrusted to it the task of producing a new publication designed to provide standards for the numerous substances and preparations used in the prophylaxis and treatment of animal diseases, and to give authoritative information on their action and uses. The volume was to be a veterinary counterpart of the British Pharmaceutical Codex.

The work of compilation was undertaken by a number of specialist committees composed of veterinary surgeons, pharmacists, chemists and bacteriologists, each group having functions indicated by its specific title (action and uses; biological products; formularies, analytical standards; antibiotics; hormones). To make the scope of the book as wide as possible, corresponding members in various parts of the British Commonwealth, in the United States, and in the Republic of Ireland, collaborated with the British workers. The editor has been Dr. K. R. Capper (editor of the Pharmaceutical Society's scientific publications).

The main purpose of the British Veterinary Codex is to specify standards for all important veterinary medicaments, and to provide essential details of their pharmacological properties and clinical applications, their toxicity, dosage and mode of administration. The book is not intended to be a textbook of veterinary medicine, but even so it gives sufficient information to provide a most valuable work of reference for pharmacists and veterinary surgeons.

The aims of the British Veterinary Codex Committee have undoubtedly been achieved in this attractive pub-

lication, which contains sound and up-to-date information on all aspects of the use of drugs and medicinal substances in the control of animal diseases. The work will be welcomed not only in Great Britain but in many countries overseas where there is a need for a reference book to serve the requirements of veterinary surgeons, pharmacists and manufacturers alike.

Clean Dispensaries

THE medical officer of health for the borough of Finsbury is seeking the support of the twenty-seven other London boroughs in a move to extend to the handling of drugs the cleanliness sections of the Food and Drugs Acts. That result would be achieved, if he had his way, by an appropriate amendment to the Food and Drugs (Amendment) Bill now before Parliament. Such matters as the state of walls and ceilings, cleanliness of personnel, etc., would come under local-authority control.

The medical officer's suggestion, made in a memorandum to the town clerk, is supported by strictures on the condition in which he found some local pharmacies—"particularly in that part of the shop where dispensing is carried out." His report and recommendation have been accepted by the borough's finance committee to the extent of referring them to the Metropolitan Boroughs Standing Joint Committee.

Before the recommendation goes too far, may we point out two things to the medical officer and those whom he is rallying to his support. The first is that there are in Finsbury, as in other London boroughs, many pharmacies exemplary in their standards of cleanliness. The wording of the committee's minute, which is public, casts an unwarranted slur on them in seeking control of all for the sake of the few black sheep (of which there are some in every calling). Secondly the profession already has its own machinery—some of it only recently created—for dealing with offences by members against high standards of professional practice. A profession that has been successfully entrusted by the legislature with the prosecution of offences under the poisons statutes can safely be left to discipline any members who fall short of proper standards of hygiene. Not until the Pharmaceutical Society's own machinery for inspection has been fully tried out and found wanting, therefore, should any addition be countenanced to the already too numerous inspectors under the Home Office, Weights and Measures Office, local authorities, etc. Since the machinery is adequate and efficient, the Finsbury proposals should be left to lie on the table.

Progress with Influenza Virus

THE first results of a large-scale controlled trial of the use of influenza-A vaccine carried out in 128 centres during the winter 1952-53 has recently been published by the Medical Research Council's committee of clinical trials on influenza vaccine (*British Medical Journal*, 1953, 2, 1173-77). In the main trial 3 per cent. of 6,340 volunteers and 4.9 per cent. in a controlled group of similar size fell victims to influenza. Those results therefore show a reduction of 40 per cent. in the incidence of influenza in the group receiving the vaccine. The vaccines used were prepared by Dr. F. Himmelweit at the Wright-Fleming Institute of Microbiology, St. Mary's Hospital, London. The trial vaccine was polyvalent and contained strains isolated in the United States in 1947 and in Liverpool in 1951 (egg-adapted strain).

BRITISH VETERINARY CODEX

A Landmark in Pharmaceutical History

Pharmaceutical Press, 17 Bloomsbury Square, London, W.C.1. 8½ in. x 5½ in. Pp. 737 + xxiii. 45s.

IN all, the B. Vet. C.—to use the abbreviated title by which the newly published British Veterinary Codex will undoubtedly be known—comprises 737 pages. It is divided into three Sections, Part I contains 431 monographs on drugs, chemicals and related substances; Part II is devoted to antisera, vaccines, and other biological products; Part III, the formulary section, sets out the forms in which veterinary drugs are commonly exhibited, and describes the numerous formulations used in clinical practice. In addition there are sixteen appendixes, many of which relate to laboratory procedures, and tests both chemical and biological; others provide useful reference tables, and the sixteenth gives a comprehensive list of common names and proprietary names with their official equivalents. Finally there is a guide to therapeutics in the form of a combined index, which provides both a pharmacological classification and a list of diseases with references to the appropriate drugs, and the pages on which relevant information is to be found.

Nomenclature

In accordance with modern trends, and following the lead of the 1953 British Pharmacopœia, the main titles of the substances and preparations in the Veterinary Codex are in English. Many old familiar Latin names, however, are to be found in the synonyms that follow the official titles. The Latin names are widely used in practice, and their retention will be welcomed by all who advocate the use of pharmaceutical Latin in the writing of prescriptions.

The monographs in Part I of the Codex are arranged on lines similar to those of the British Pharmacopœia Codex. The source of each drug is described and, for chemical substances, the graphic or molecular formula is given. The standards include a general description of each drug, its content of active agent, tests of identification, tests for impurities, and method of assay. Under action and uses an account of the pharmacology and clinical uses is associated with mode of administration and other relevant information. When necessary a note on toxicity and special precautions is included. In short, the monograph taken as a whole provides a concise reference to the nature of the drug, the standard of purity required, what the drug can be used for, and how it is to be used to obtain the optimum therapeutic effect.

As is well known, a standard of quality lower than that of the British Pharmacopœia is often accepted for drugs used in animal treatment, as for example in Epsom salts and cod-liver oil. For a number of well-known substances the difference has been recognised in the new Codex. Thus the word "veterinary" is found prefixed to the titles of cod-liver oil, ferrous sulphate, sodium sulphate and lactose, with the cautionary note that the substances described are for animal treatment only, and do not conform to the requirements of the British Pharmacopœia. The same prefix also appears before the titles of testosterone implants, cod-liver oil with malt extract, emulsion of liquid paraffin, and tablets of santonin with calomel, thus clearly distinguishing them from the corresponding preparations for human use.

In a few instances two grades of the same substance are described, the lower quality being designated by the words "second grade" added to the title. Epsom salts of B.P. quality and Epsom salts second-grade provide one example. Another is heavy kaolin, for which there are two monographs, one for the B.P. quality, and the other for heavy kaolin second-grade, the monograph for the latter stipulat-

ing that the label must state that the powder is for external use in animal treatment only. Under castor oil, the full pharmacopœial standard is required if the oil is for internal use or for application to the eye. On the other hand, "seconds" castor oil, possessing a deep yellow colour and characteristic odour, with an acid value not more than 10 (the B.P. standard is 4) may be employed in making preparations exclusively for external application to animals. With the great majority of the drugs described, the same standards of quality are specified as for those used in human medicine.

The basic principles underlying the control of disease are naturally the same whether the patient is human or animal, and it is therefore not surprising that the Veterinary Codex contains a large number of substances that are already included in the British Pharmacopœia, for the same drugs are frequently used in both fields. To give but a few examples, there are flavines, phenols, cresols, and hypochlorites amongst the antiseptics; penicillin, streptomycin, chloramphenicol, and aureomycin amongst the antibiotics; most of the well-known sulphonamides are included; and thiopentone, chloroform, and ether are representative of the anæsthetics. Such drugs may be used in animals for the same purposes as in humans, but the quantities and the doses are considerably larger. In fact, pharmacists who are not well-acquainted with veterinary matters may perhaps find the contrast between human and animal doses a little bewildering when they note that the dose of Epsom salts for one cow may be as much as 16 oz., and of castor oil as much as two pints. Those doses, of course, are based on body weight, and are quite normal for such animals. Additional interest for pharmacists new to the veterinary field is provided by the monographs on boluses, electuaries, implants and intramammary injections.

Scattered amongst the 431 monographs are a variety of purely veterinary drugs that have no applications in human medicine. Many of them are synthetic chemotherapeutic drugs with a specific activity against bacterial or protozoal organisms, notable examples being quinuronium and phenamidine for red water in cattle, sulphaquinoxaline and nitrofurazone for coccidiosis in poultry, aminonitrothiazole for blackhead in turkeys, quinapyramine and dimidium for the various forms of animal trypanosomiasis, and propamidine for metritis.

Monographs on Anthelmintics

No less important are the numerous drugs used against worm infestation in the various species, for all animals are prone to that condition, and a vast amount of unthriftiness and subnormal health results from it. The advances that have occurred in this field during recent years are reflected in the variety of anthelmintic drugs ranging from those of vegetable origin such as areca, male fern and chenopodium to more specific chemical substances such as phenothiazine for roundworms, hexachloroethane and carbon tetrachloride for liver fluke, and recent introductions such as dichlorophen for tapeworm and diethyl-carbamazine for ascariasis.

Insecticides for the control of external parasites such as ticks, fleas, lice, and mange mites, which can so readily undermine animal health and appearance, are adequately represented in various monographs among which may be mentioned derris, pyrethrum, and the important synthetic compounds dicophane and gamma benzene hexachloride. In addition, a special monograph in the formulary section is devoted to dips for sheep and cattle. Various dusting powders and creams containing insecticides are also included in that section.

Vaccines and Sera

The section on biological products occupies Part II of the Codex and includes antisera, bacterial vaccines, toxoids, and viral vaccines. Each monograph describes the method of preparation, the action and uses of the particular product, standard specifications, and storage recommendations. Potency and safety tests are provided to ensure adequate purity and efficacy. Vaccines and sera occupy an important position in the veterinary field. They are often used effectively in many animal diseases for which there is no other method of control. In sheep, for instance, well-known diseases such as lamb dysentery, blackleg braxy, and black disease are controlled by the appropriate vaccines and sera, and they and many more are included in the Codex. Among the products for cattle, probably the most important is the strain 19 *Brucella abortus* living vaccine that has been used so successfully to reduce the incidence of contagious abortion in dairy herds. A vaccine against foot and mouth disease is also included, though in Great Britain, of course, the slaughter policy is the only official method of controlling the disease. In the pig, perhaps the most widely used vaccines and sera are those for swine fever. For the dog, notable inclusions are the new antiviral preparations for distemper and hard-pad disease.

A useful list of product names and their equivalents is provided in Appendix XVI. Here many well-known proprietary names are found interspersed with synonyms and ordinary names for drugs. The list is intended to assist users who are more familiar with the trade-names than with the Codex titles. Perhaps an improvement could have been effected by distinguishing the trade-names in some way from the others, for with many products it is invariably the trade-name that the pharmacist or veterinary surgeon needs to know when seeking a source of supply.

Onward from Galen

A CURRENT CAUSERIE

THE still that delivers "sterile, pyrogen-free" water is so far only a recent slip of our caption-writer, and we have rightly been taken to task for allowing the words to appear in print. Perhaps some inventor of the future may, as it were, one day legitimise our offspring. Editors have slipped before, of course. There was an occasion some years ago when a witness at a Board of Trade inquiry was reported in a daily newspaper as having said that the annual imports into Britain of a branded safety-razor blade would, if spread out, cover England eight times over. Working from the known area and population of England and the known dimensions and weight of the razor blade a mathematician calculated that nearly 800 million tons of the blades must be arriving each year, and that the consumption per head (women and children included) was 20 million blades, weighing nearly twenty tons. "Whilst disclaiming any desire to interfere with the innocent amusements of the people," he wrote, "I feel that this safety-razor business is being overdone. Traffic will be impeded, and the scenery spoilt when the discarded blades cover our fair England eight deep." We hope no-one at Addenbrooke's hospital (where the still is) will by-pass the autoclave through reading our caption.



FOREIGN chemists, largely from England and Germany, are replacing American chemists in large American universities according to a statement made by Professor Roger Adams, University of Illinois, on the occasion of his receiving the 1953 Midwest award of the American Chemical Society recently. He blamed the drafting of research workers into the Army for part of the trouble and claimed that if the present trend continued research developments in U.S. universities would be achieved "almost exclusively with the help of foreigners." Of late, because so few

Americans were available, funds provided to professors for expediting their researches had been used to bring foreign scientists to the United States. The recent action of the Mutual Security Administration in Washington in providing funds for 150 foreign students at the post-Ph.D. level to come to America had been received with unexpected enthusiasm in European countries. Apprehension had spread to Germany and England, he said, where it was feared that some of the best young scientists in those countries might sooner or later be attracted to the United States for permanent employment. A requirement of the recipients of the U.S. travel fellowships was, however, that they return home at the end of their appointments.



FURTHER evidence incriminating tobacco tar as a cancer producer is mentioned in the *British Medical Journal*, December 19, p. 1362. The cancer referred to, however, is in mice. It has been found that when tobacco tar was applied to the skin of mice over a period amounting to half the life span of the animal used about fifty per cent. developed cancer. The *B.M.J.* emphasises that there is nothing in the latest work (which is shortly to be published) that incriminates tobacco as the causative agent of lung cancer, but poses the question whether the combined weight of evidence is not now so compelling as to convince the tobacco industry that there may be some connection between tobacco and cancer of the lung.

ECHOES OF THE PAST

UNTIMELY SEASONAL DEATHS

From *The Morning Chronicle* and *London Advertiser*,
December 25, 1788.

Gula plus nocentior.—ON the return of Christmas Day, for several years, our Correspondent has given the most friendly admonitions for the preservation of the health and lives of mankind; and with the same good intention hints to the publick, that the resolution of moderation and temperance at the present season, will preserve persons in their usual health, and indubitably prevent a great number of untimely and premature deaths. If the annual return of Christmas is to be an apology for gluttony and ebriety, the consequence must be most assuredly the excruciating gout, palsy, and the apoplectick fit; and thus the *debitum nature* is unfortunately paid by vast numbers, before the period allotted by Providence, to the inconsolable affliction of numerous families, who are, in consequence of their husbands' and fathers' imprudence, doomed too frequently to the lowest state of poverty and wretchedness. As sensible and learned men peruse the *Morning Chronicle*, the writer wishing to preserve such valuable lives to their latest period, hopes the following passage will be impressed on their minds: *Apoplexia omnium malorum, de ebrietate profluentium immanissimum et frequentissimum est.* In order to prevent such dreadful terminations of life in future, he earnestly advises those who have been led into excess, on their return home, to drink watery fluids, and on going to bed, to lie with their heads considerably elevated, but rather in an inclined posture, to expedite discharges from the stomach; but if the face should swell, appear red, and the eyes prominent, then suffocation is to be dreaded, and the family apothecary must be immediately consulted; for it is an unfortunate truth, that thousands die in the night time, whose lives would have been preserved, if humane attention had been paid to them, for a few hours after intoxication.

INFORMATION WANTED

The Editor would appreciate information about suppliers of the following items:

BUCAMOL cold treatment
SCOTT-CORWEN one-way stretch bandages
MEDIA 881
ULTRAN chromicised catgut
DRAPIER syringes



RIMES FOR OLD THYMERS

CLOSE BEHIND US

(with apologies to Lewis Carroll)

"WON'T you talk a little Latin?"
Said the Chemist to the Prof.:
"Western Culture's close behind us
And we must not put her off."
Quoth the Prof. a trifle grimly,
"So it's Latin that you speak!
Shades of Virgil and Catullus,
Why not call it Neo-Greek?"
"All this talk of Supps. and Liquors,
All your Mag. and Hyd. and Bic.,
If you'd told it to the Legions
Would have made the Legions sick."
"If it's this you call your birthright
Then the argument's absurd!"
So he went his way: and Culture
Followed him without a word.

PETER COOPER

PYROTECHNIQUE

THERE'S poison in the potion
And there's peril in the pill;
And danger's in the distillate
That trickles from the still.
In short, my fellow pharmacists,
In everything we do
The e's a modicum of danger—
But we know it, me and you:
We relish no committee-men
To order us about
Lest the pyogens should get us
if we don't watch out.
Gram-negative bacteria
Of pyrogenic strains
Sail down upon the dust-clouds
Or they threaten from the mains;
But we've got the proper baffles
And the still's not out of date,
Yes, we've surely swilled the bottles
With this morning's distillate.
If we scoff at such precautions
There's a risk, beyond a doubt,
That the pyrogens will get us
if we don't watch out.

But our knowledge is extensive
And our practice up to date;
Our intravenous crystalloids
Are never second-rate:
We buy no cheap and nasty drugs,
And never store them loose;
Our dextrose is the finest
That the country can produce.
The rabbits bear us witness,
The critics we can flout—
For the pyrogens can't get us
while we do watch out!

PETER COOPER

THE lights shine out across the street
Where winds are whisking snow and sleet;
Within, the warm and scented air
Lures passers-by to loiter there,
Smile at the damsels clad in white
Presiding over counters bright
With soaps and perfumes, gifts a score
That frantic shoppers, tired and sore,
Delight to spy: "Just look, Selina,
The very thing for Aunt Devina!"

OPERATION FENESTRA

THE wizard of the crêpe
Arrives to drape
Our window with colour schemes
Beyond the wildest dreams
Of Rossetti and the like,
Bringing an aura of glamour,
A magnetic hammer
And a mouthful of tacks.
Not an item he lacks,
This crêpe papery Van Dyck.
In an hour or two
He has transformed the view
Of the shop from the street,
And, his mission complete,
Awhile his art we're praising,
He says:—"That's about it
Will you sign the firm's chit?"
And in the "Comments" space
We reverently place
The sing'e word "Amazing."

But our own window dressing!
It's most depressing.
It takes us all day.
The resultant display
Brings guffaws from the staff.
It eternally foxes
Us how he turns boxes
Into neatly placed cubes.
Our crêpe paper "tubes"
When they're stretched, break in half!
Who are these magicians
That win competitions?
Don't they wear sleeves themselves
That sweep things off shelves?
Have they elbows that can't knock?
The last showcard.—That's all.
But did something fall?
Look! That paraff. liq.'ll
Spread out and trickle
—Quick there! Help move the stock!

J. J. H.

WOT, NO LATIN?

EMERGING late from theriac and mediaeval brews,
We pharmacists gained status—joined the scientific crews:
Introduced examinations very practical in kind,
Established a curriculum most carefully designed.
We added further "ologies" q.s. as time went by,
(The list is now exhausted by the last: zoology)
With all the threads united in the world-known Latin tongue,
The language that for centuries in learned ears has rung.

That steady march of progress of late has met a check—
To put the matter bluntly we have "got it in the neck!"
The advent of the N.H.S. has caused a serious fall;
Let every working pharmacist give ear to danger's call!
Extemporaneous pharmacy makes less demand on skill—
With mixtures bought in winchesters the prescription one
may fill:
No search for incompatibles that troubled anxious brain:
No watch for overdosage that once might cause us pain:
No choosing pill excipients—the pestle now is still;
The pills and tablets come in bulk from power-driven mill:
The powder-folder seldom used: the plaster-iron cold:
An empty shell is all that's left of "art" we knew of old.

We're oft the tame "dispensers" now, who count what
others make;
The only sign of former skill the label saying "Shake."
To add to our discomfiture in this our time of stress
A Philistine proposes pulling down our base, no less,
By cutting out the Latin in prescriptions, if you please!
Where then will be the value of our Ph.C. degrees?
Not all our claims professional would public faith restore;
They'd class us as technicians—hardly that—but nothing
more!

JACOB JAMESON

CHRISTMAS EVE

The prentice lad, with brisk good will
Keeps pounding at his pulv. pro pil.;
He cannot for his life perceive
Why certain folks choose Christmas Eve
To write prescriptions so uncouth;
But feels his pocket, which in truth
Emits a crisp and rustling sound—
Welcome indeed that Christmas pound!
The Governor seems a proper sport,
The generous old-fashioned sort.

The chemist hovers by the screen,
His heart aglow, his thoughts serene,
While through his veins a little thrill
Goes pulsing, as the busy till
Chimes out fresh solace to his ear.
"A pity 'tis but once a year!"
He muses; but his eyes are bright;
As, gazing out into the night,
He on his fellows far and wide
Invokes the joy of Christmastide.

PETER COOPER

RECONSTRUCTING PHARMACY'S PAST

How accurate detail is ensured in a "History of Pharmacy" picture series



ROBERT A. THOM, artist of the historical pharmaceutical series issued by Parke, Davis & Co., recently returned to the United States after a five-month European trip, during which he did on-the-spot research for six additional paintings in the series. So far, Thom has completed twenty-two paintings, and new ones are being added at the rate of six a year until 1956. Authenticity of facts, so far as they are known, and of time, place, people, costumes, artifacts, medicines and methods used, is the keynote in the series, and three to six months of research go into each picture.

WHAT THE PICTURES SHOW: 1, artist Robert Thom (left) of Birmingham, Mich., confers with George A. Bender (editor of *Modern Pharmacy*, and head of the project to record in oil paintings the major developments in the art of the apothecary). 2, From various references and illustrations Thom sketches a pattern of Avicenna's costume. 3, Unable to find cloth with a suitable Persian pattern on the market, Thom paints the intricate design on a bolt of plain material. 4, Mrs. Thom tailors the cloth into a garment true to the period. 5, Reference photographs are taken to serve as guides, with a rug dealer in Persian turban posing amidst oriental rugs and simulated Persian artifacts. 6. The result. The painting is captioned by Bender and finally published in uniform style with the earlier paintings.



SIX WEEKS IN A FRENCH PHARMACY

By PETER PRATT

DURING the past summer I was fortunate enough to be able to spend six weeks in a near-average French pharmacy. The arrangements were effected through the Pharmaceutical Society of Great Britain and its French counterpart the *Ordre National des Pharmaciens de France*, both societies being most helpful in making arrangements. Owing to strict legislation concerning the employment of foreigners in France, I had to stay with the pharmacist and his family. I had a charming room to myself, and ate with the family. That was probably an advantage, for it enabled me to see much more of French family and social life than would otherwise have been the case.

The pharmacy was at Compiègne, a town world-famous as the site of the signing of the Armistice that ended the 1914-18 war. The building was completely new and was one of the first dozen shops open in a district in the process of being completely rebuilt. Luckily much of the older part of the town has been preserved, but a section lying near the river Oise was almost completely destroyed. The rebuilding had two main disadvantages: first, the pharmacy had been opened only a year and was not running at full efficiency; and secondly, the quantities of dust evolved during the construction were difficult to imagine and made cleanliness nearly impossible.

The premises consisted of a shop, small dispensary, laboratory, stock-room and office. All those rooms had been fitted out most carefully by the pharmacist in order to conserve space, for the premises were not over-large. All the cupboards within the shop and dispensary carried shelves on the inside of the doors and in some cases on both sides of a single door. The building throughout had a mosaic floor which was most unfortunate when it came to dropping bottles. Another interesting feature was a series of cupboard door-handles designed by the pharmacist and representing the pharmaceutical serpent. The shop was lit throughout by fluorescent lighting, and gave the impression of being light and airy. The shopfront comprised two fair-sized windows on either side of a semi-plate-glass door which, during the day, gave plenty of light. To one side of the door a showcase partitioned off a small corner with a table and several comfortable chairs, where customers would await their prescriptions or hold consultations with the pharmacist.

Dispensary and Equipment

The dispensary was equally small but well fitted—the fittings included a suppository machine and a cold syrup-making machine. Each schedule of listed poisons is kept in a different locked cupboard and a prescription book of all prescriptions dispensed is kept. The laboratory was the best-furnished portion of the pharmacy, containing a large centrifuge, autoclave, gas oven, and a very fine binocular microscope. It was here that the pharmacist spent most of his time, concerning himself mainly with blood and urine analyses while the dispensing was carried out by an unqualified dispenser and the apprentice. It is the general rule for all pharmacists in France to do some analytical work but this pharmacy did more than average.

The dispensing was a little monotonous in that most of the prescriptions were for proprietary lines, which are labelled and dispensed as they are, without breaking down.

While I was there several people came in suffering from sunburn and I suggested using oily calamine lotion. Un-

fortunately that preparation does not figure in the French Codex nor does ordinary calamine. We had, therefore, the near-unique experience of preparing precipitated zinc carbonate, drying it, and colouring with iron oxide. Unfortunately, during that somewhat lengthy process most of the sunburn had healed.

Of the dispensing we did, dry-cachet and mixture making made up the greater part, though ointments were quite popular and we made an average of one batch of pills a week. The French have a small cachet machine that works on the principle of the ice-cream vendor's machine for measuring ice cream into wafers. The instrument is adjusted to contain the weight of compressed powder required in the cachet, and that is pressed out into the cachet (see *C. & D.*, October 31, p. 453).

In making mixtures the liquids were nearly all weighed in after the mixture had been tared. Very small quantities were measured in from a dropper after the number of drops per gm. had first been determined. Needless to say, alcohol was the most common vehicle, and chloroform water was very, very seldom used.

In France, there is a growing practice of homœopathic medicine which has apparently made great strides since the war. There are a large number of firms selling this type of commodity and some startling literature has been issued as publicity. One series of infusions, numbered from one to twenty, nearly covers the range of present medical diagnosis, for the preparations are said to cure everything as well as rejuvenate! There is little doubt that British legislation would quickly incriminate the manufacturers making the claims.

Staff

The staff normally consisted of three people: the proprietor pharmacist, an unqualified dispenser and an apprentice training for his first examination. The apprentice system is rather different from our own. All apprentices are expected to serve a one-year apprenticeship in a suitable pharmacy and to pass an examination set by the school of pharmacy which they propose to attend before starting the more academic study of pharmacy. The one-year apprenticeship starts after taking the final portion of *Baccalauréat* which is the French equivalent of our General Certificate of Education (Advanced Level) examination. During the year the apprentice is expected to make a large number of Codex preparations, which are written in a prescription book that has to be signed by the apprentice-master as being the apprentice's own work and by the examining board that the work is satisfactory. Besides this the apprentice must be able to recognise and name a large number of crude drugs, galenicals and simple mixtures. Finally there is a certain amount of theoretical knowledge on dispensing such as incompatibilities, etc., which must be known, including maximum doses.

The apprenticeship is followed by an examination that includes the recognition of drugs and the dispensing of two prescriptions, one of which contains a pair of incompatibles and sometimes an overdose. The apprentice must pass this examination before proceeding to a school of pharmacy.

The other member of the staff, the unqualified assistant, was also working for an examination. There appears to be a series of proficiency examinations for unqualified assistants which grades them into pay-groups, so that on completion of this examination the assistant would be able to demand a higher wage.

It was interesting to note the amount of assistance given to these employees by the proprietor pharmacist to assist their advancement—it appeared to be a general principle of pharmacy in France, and probably accounts for the



long hours of work which these assistants put in. The shop was open from nine o'clock in the morning until eight o'clock at night with a one-hour break for lunch between one and two o'clock. The pharmacy also followed the universal French system of not opening on Monday morning, and using that half-day to recuperate from the excesses of a continental Sunday. Thus both the assistants and the pharmacist himself worked a five-and-a-half-day week of fifty-six hours. That working week was disturbed by the rota system, by which one pharmacist in the town was always open at the week-end. During the rota week, which came once every six weeks, the assistants worked all day Sunday and Monday as well. The rota week fell during the time I was there and the duty was a very full day's work.

Similarities with British Practice

The range of products sold in the pharmacy was much the same as that of a fairly ethical general pharmacy in England. The quantities of cosmetics sold were not great, but much more toilet water was sold. The pharmacist made his own eau-de-Cologne—a very fine preparation. I was most surprised to see so many proprietary lines which had become international. I was most at home with the tooth-paste and shaving preparations, which were nearly all to be found in England, most of them having originated in America. So far as proprietary drugs were concerned, many of those also originated in large international firms, though all the antibiotics were made and marketed in France. The dispensing of the antibiotics was most up to date and included a large business in penicillin, chloram-

phenicol and aureomycin. They were dispensed on a similar scale to that of an English pharmacy.

In July, just before my stay, the pharmacy had received its first prescription for cortisone, which had previously been reserved for use in hospitals and clinics under much the same regulations as are in force in England.

Taking a very general view, based on my somewhat limited experience in one pharmacy, it would seem that French pharmacy is easily comparable to our own but with very different emphasis. Thus dispensing in cachets is much less in England than in France almost certainly by reason of the difficulty of obtaining cachets here during the war; the doubtful habit of keeping stock mixtures in England is impracticable in France, owing to the diversity of prescriptions, and it is in most cases unnecessary as the number of prescriptions does not warrant it.

I should like to thank publicly the Pharmaceutical Society of Great Britain, the *Ordre National des Pharmaciens de France* and more especially the French pharmacist and his family who made this stay possible and so instructive.

A SEASONAL MIXTURE

By S.E.

ONCE upon a time there was a hospital pharmacist who worked in a very beautiful department that was the envy of other pharmacists for many miles around.

The pharmacists in their department and the people in all the other departments of the hospital, members of *soi-disant* equally noble professions, worked together against disease and the moral ills that squire disease. The pharmacists were all happy in their profession (except that there came at times a certain sadness that so much good work should be rewarded with so few of this world's goods).

Now there came a learned consultant from afar, who prescribed for all the patients in the hospital the following prescription:

R	Pacis	...	...	...	gr. x
	Bonae voluntatis	...	...	...	gr. x
	Dulce jubilum	...	...	ad 3 ss.	
	Sig.	3 ss.	per diem		
	Mitte	3 x			
	Rep.				

The pharmacist, not knowing where such ingredients might be found, consulted the chief pharmacist, who consulted the other pharmacists, who consulted the dispensary porters, who consulted the young lady dispensary assistants, who were very young and very beautiful, but they shook their beautiful heads. "Then let us," said the pharmacist, "consult some wise manufacturer, who shall manufacture these ingredients for us." So he consulted a wise manufacturer and the wise manufacturer instructed his chemists to synthesise peace and goodwill. And when the chemists had completed the synthesis, the production shops prepared the product in the form of a powder, which the packers dispatched in two drums. The carman delivered them to the pharmacist, who received them gladly.

"Now let us," said the pharmacist, "first make up a small quantity of this mixture. For what would become of the patients, should peace precipitate or goodwill crystallise out?"

So the pharmacist weighed out two hundred grains of peace and two hundred grains of goodwill and mixed them in a mortar with joy. And the chief pharmacist and the other pharmacists and the dispensary porters gathered round to watch and the young lady dispensary assistants bent their beautiful heads to see. And peace did not precipitate, neither did goodwill crystallise out.

Then the pharmacist made up the prescription for all the patients in the hospital and the porters took the ward-baskets back to the wards. Whereupon there was rejoicing throughout the hospital and all thanked the pharmacist for dispensing peace and goodwill.

ON A TIGHTROPE



Prompted by the title "Man on a Tightrope," a Scottish pharmacist pictures himself in the title rôle of a recently shown film as it might be (but is not).



MEMORIES OF HENRY DEANE REVIVED

A Display at the Pavement Pharmacy, Clapham Common

OBJECTS associated with the pharmacy founded by Henry Deane, president of the Pharmaceutical Society a century ago and one of the great names of the craft, were displayed there recently.

"Deane Blue"

There were jars bearing his original otto of rose, cold cream and lip salve labels; an early leaflet listing about thirty-six "family remedies" such as acidulated kali, carminative black draught and live-long lozenges; and a number of jars in "Deane blue," so called because they were specially commissioned and made for him in Holland at a Delft pottery. There were marble mortars and copper pans; a conical glass measure of about the year 1800; pewter and stoneware infusion vessels of various dates; and, mounted on an iron stand, a copper pill-finisher rotated by hand-driven ratchet. A plaster iron in the display is readily seen in the foreground of the illustration on this page. Next to it is a steel cutter for stamping out leather washers, and nearby are pieces of black and white kid for plaster spreading. Evidently plaster making was no mere academic accomplishment at the pharmacy, for in one of the prescription books there is the pen-

cilled outline of a plaster shape, put there no doubt to ensure uniformity in "repeats."

The prescription books tell their own tale of Deane's slow progress to prosperity, for they show that seven years were needed to fill the first, six the second, and much less the later ones. A notable feature of the first (destroyed, unfortunately, by a V2 in 1945) was that the directions under the prescriptions were almost without exception in English, not Latin. In the book in use in 1867 "zinc oxyde" was one of the ingredients of a lotion that also contained calamine, lime and rose waters, and glycerin, and was dispensed in a 3-oz. bottle for Master Frank Winterbottom.

Materia medica among the exhibits included poppy capsules, senna pods and a piece of the "spongiopiline" that was in use before the days of gamgee tissue.

A touch of light relief was provided by a wood smoothing-plane bearing the inscription "Henry Deane's patent safety razor. The patent was sold by Henry Deane to Tom Gillette for 4s. 3d. after he had been stood six drinks in 'The Plough.' Hence the rise of the famous Gillette industry."

One link with the current fittings of the shop was a brass sealing-jet, coun-

terpart of one in the dispensary that is in continuing use and was recently re-tested by Gas Board officials and pronounced as leak-tight as when it was installed.

Not all the objects were pharmaceutical. There were chinaware from the household; a cudgel with which Henry Deane once—strange thought!—chased polecats back on to the Common from the shop; and photographs of Henry Deane and others. The sharp-eyed who knew the late Professor Greenish may recognise him in a characteristic portrait on an easel (right background).

All told, the exhibition bore evidence of the devotion of one to whom the memory of Henry Deane is something to be kept alive. Miss A. T. Borrowman brought together the material. In its arrangement she enlisted the help of another distinguished pharmacist and former apprentice at the pharmacy: Lady Jephcott.

Royal Society Officers.—The following officers 1953-54 have been elected by the Royal Society: *President*, Dr. E. D. Adrian, O.M.; *Treasurer* and *Vice-president*, Sir Thomas Merton; *Secretaries* and *Vice-presidents*, Sir Edward Salisbury, C.B.E., and Sir David Brunt; *Foreign Secretary*, Sir Cyril Hinshelwood.

TRADE REPORT

The prices given are those obtained by importers or manufacturers for bulk quantities or original packages. Various charges have to be added whereby values are in many instances augmented before wholesale dealers receive the goods into stock. Crude drugs and essential oils vary greatly in quality and higher prices are charged for selected qualities.

LONDON, DECEMBER 22: There were few interesting developments in any of the markets during the week, but some SPICES showed substantial price rises over their previous levels. Shortages of many CRUDE DRUGS still persist and the list of botanicals for which there are virtually no supplies on the spot grows bigger each week. Stocks of BUCHU and Cape ALOES have been taken up.

CINNAMON for shipment registered a sharp advance while CARDAMOMS (Aleppy greens) continued firm at origin. With the New York market reported to be buying Jamaican GINGER, quotations for spot and for the new-crop made substantial gains here on the week; African also moved up in sympathy. From December 17, QUILLIA BARK, GUM ACACIA, TRAGACANTH and BEESWAX are among a number of commodities that may be imported from any country without separate licences (see p. 625). From the same date, AGAR may be imported under open general licence from any country other than certain specified ones (chiefly in the dollar area). SHELLAC remained firm on the spot with the F.O.T.N. variety increased by 2s. 6d. per cwt. Shipments of Indian Shellac during November amounted to 22,548 packages of which the United Kingdom took 7,238, the United States, 2,521 and the Continent, 9,000.

There were no significant price changes in PHARMACEUTICAL CHEMICALS or in ESSENTIAL OILS and trading in those markets was generally quiet.

Pharmaceutical Chemicals

BUTOBARBITONE.—B.P.C. is 75s. per lb. in 1-cwt. lots.

CALCIUM GLUCONATE. — Quantities of 3-cwt. and upwards are quoted at 4s. per lb.; 1-cwt. to 2-cwt., 4s. 1d.; smaller quantities, up to 4s. 4d. per lb.

CARMINE.—Prices are from 72s. to 77s. per lb., according to quantity.

CHALK.—In minimum 1-ton lots powder is £21 and cones, £22 10s. per ton.

CHLOROCRESOL.—Pharmaceutical quality is quoted at 6s. per lb., in 1-cwt. drums.

CHLOROXYLENOL.—B.P. quality is quoted at 6s. 9d. per lb. for 1-cwt. lots.

CINCHOPHEN.—1-cwt. lots are quoted at 1s. per lb.

CITRIC ACID.—British makers quote 205s. per cwt. for 1-4-cwt. lots and 200s. per cwt. for 5-cwt.

CREOSOTE.—B.P. quality, ex beechwood, is quoted at from 6s. 9d. to 7s. 6d. per lb.

CRESOL.—Price of B.P. quality from distillers is 7s. 9d. per gall. in 5-gall. lots.

CYCLOBARBITONE.—B.P.C. and CALCIUM DERIVATIVES in 1-cwt. lots are 75s. per lb.; small lots from 77s. 3d. to 79s. 6d. per lb.

HYOSCINE HYDROBROMIDE.—1-oz. lots are 95s. for British material.

ISOPRENALINE SULPHATE. — B.P.C. is 2s. 4d. per gm. for 100-gm. lots.

LACTOSE.—English, in 1-ton lots packed in 1-cwt. paper-lined sacks is £137 per ton, delivered in the United Kingdom.

LEAD ACETATE.—B.P. crystals are 180s. per cwt., and technical, 160s.

MAGNESIUM CARBONATE.—Minimum bulk rate for LIGHT is 121s. per cwt.; HEAVY is 150s. per cwt. for 5-cwt. lots and 125s. per cwt. for 1-ton lots.

MANDELIC ACID. — 1-cwt. lots in 28-lb. containers are 10s. 9d. per lb. The CALCIUM SALT is also 10s. 9d. while SODIUM is 11s. 3d. per lb. for 1-cwt. lots.

METHYLPHENOBARBITONE.—B.P. is 63s. per lb. (1-cwt. lots).

METOL. — In 1-cwt. lots the price is 24s. 6d. per lb.; 28-lb., 25s. 6d.; 14-lb. 27s.; 7-lb., 28s.

PANCREATIN. — 1-cwt. lots, B.P., is now at 8s. 6d. per lb. and U.S.P. at 10s. 6d. per lb.

QUININE.—Makers' rates (per oz.) for 100-oz. lots and over are as follows:—ALKALOID, 3s. 10d.; ACETYL SALICYLATE, 5s. 4d.; BISULPHATE and SULPHATE, B.P. 1932, 2s. 8d.; SULPHATE, B.P. 1948, 3s.; DIHYDROBROMIDE and DIHYDROCHLORIDE, 3s. 10d.; FORMATE, 4s. 8d.; GLYCEROPHOSPHATE, 4s. 5d.; PHOSPHATE, 4s. 4d.; HYDROBROMIDE and HYDROCHLORIDE, 3s. 5d.; SALICYLATE, 3s. 11d.; QUININE and UREA HYDROCHLORIDE, B.P.C., 4s. TANNATE, 2s. 7d.

Crude Drugs

AGAR.—Kobé No. 1 on the spot is now 15s. 3d. per lb. Forward, 12s. 6d., c.i.f., quoted for January-February shipment of new crop.

ALOES.—Prime Cape supplies are cleared on the spot. Shipment, 156s., c.i.f., nominal. Curaçao is offered at 330s. on the spot.

ANISEED.—Chinese star is offered for shipment at 200s. per cwt., c.i.f.

BUCHU.—Spot supplies are cleared.

CARDAMOMS.—Firm. Aleppy greens on the spot are 12s. 6d. per lb. and for shipment 12s. 6d. to 13s., c.i.f. is asked.

CASCARA SAGRADA.—Offers for shipment are 265s. per cwt., c.i.f. Spot supplies are 285s., duty paid.

CINNAMON. — Ceylon for shipment OOOO, 3s. 3½d. per lb., c.i.f.

ERGOT.—Weak. Portuguese for prompt shipment is 15s. 6d. per lb., c.i.f. Spot is offered at 17s. 3d.

GINGER.—African on the spot, f.a.q., 90s. per cwt. and for shipment, 77s. 6d. to 80s., c.i.f. quoted. Jamaican No. 3 is also firmer at 115s. on the spot. New-crop for January-March 1954 shipment, 115s., c.i.f.

GUM ACACIA. — Kordofan cleaned sorts on the spot are quoted at 105s. per cwt. New-crop, March-April 1954, 92s. 6d., c.i.f.

PEPPER.—Quiet. White Sarawak, 6s. 5d. per lb. paid and from 6s. 3½d. to 6s. 4½d., c.i.f., quoted for shipment as to position. Black Sarawak, special quality, is 6s. 3d. per lb., spot and 5s. 9d., c.i.f. Black Malabar is 870s. per cwt. spot and 750s., c.i.f.

QUILLIA.—Whole bark, if available, is 140s. per cwt. on the spot. Cut is 160s.

SEEDS.—ANISE.—Firm. Cyprian, 170s. per cwt., spot London. No Turkish available. CARAWAY.—Dutch are inclined to be easier on spot, with 94s. per cwt., duty paid, now quoted. CELERY.—Unchanged. Indian 1s. 10½d. per lb., spot London. CORIANDER. — Unchanged. Moroccan is

55s. per cwt., duty paid (51s. 6d., in bond); English, 70s. Shipment; Moroccan, 42s. 6d., c.i.f., London. CUMIN.—Spot: Cyprian, 130s. per cwt.; Moroccan, 127s. 6d., duty paid; Maltese, 115s. DILL.—Indian 85s. per cwt., spot London. FENNEL.—Indian, 127s. 6d. to 130s. per cwt., spot. FENUGREEK. — Moroccan is quoted at 50s. per cwt., duty paid. MUSTARD.—English, 70s. to 85s. per cwt., according to quality.

SENEGA.—Quiet. Shipment quotations are 16s. per lb., c.i.f. Spot material is offered at about 15s.

SHELLAC. — Spot quotations are:—F.O.T.N. pure 280s., nominal; F.O. standard No. 1, 285s.; fine orange, 290s. to 330s. per cwt., ex-London warehouse.

TURMERIC.—Unchanged. Rajapore, 125s. per cwt., paid for spot; Madras finger, 130s. New crop for March-April shipment is 85s., c.i.f.

Essential and Expressed Oils

ALMOND.—B.P. is from 6s. to 7s. 6d. per lb., as to quantity.

AMBER.—Rectified on the spot is quoted at from 1s. 6d. per lb.

BOIS DE ROSE. — Brazilian on the spot is 32s. 6d. and 29s. 9d., c.i.f.

CADE.—Spanish is about 3s. per lb. on the spot for 1-cwt. lots.

CAJUPUT. — Spot supplies are 15s. 6d. per lb.

CALAMUS. — Imported oils are offering from 75s. per lb.

CANANGA. — Supplies to come forward are quoted at from 60s. per lb., c.i.f. Spot is from 62s. 6d. per lb.

CUBEB.—English-distilled is 55s. per lb. and imported, 47s. 6d.

LAVANDIN. — Spot values are from 14s. 6d. per lb.

LAVENDER. — French, 40-42 per cent. linalol on the spot is about 40s. per lb.

LAVENDER SPIKE. — Spanish is about 11s. 6d. per lb.

LEMON.—B.P. (4 per cent. citral) on the spot is about 49s. per lb., and 45s., c.i.f.

LIME. — Supplies of West Indian distilled are offered from 45s. to 50s. per lb. on the spot.

ORANGE.—Spot offers for sweet vary as to quality and quantity. West African is 11s. 10d. and Jamaican, 10s. 6d. per lb.

ORIGANUM.—In original containers the price is 14s. per lb.

OTTO OF ROSE.—Anatolian is offered on the spot at 300s. per oz., and Bulgarian, 425s. ex warehouse.

PALMAROSA. — East Indian is from 37s. 6d. per lb., on the spot, and 32s., c.i.f. for prompt shipment. Formosan, 27s. 6d., spot.

PATCHOULI. — Penang for shipment is 50s. per lb., c.i.f., with spot offers at 57s. 6d.

PENNYROYAL. — Quotations are about 12s. per lb., duty paid.

PETITGRAIN. — Paraguay on the spot is 18s. per lb., and for December-January shipment is scarce at 16s. 10½d., c.i.f.

PIMENTO. — English-distilled berry is nominal with imported at 55s. Rectified leaf (imported), 25s.

PINE.—*Pumilionis* on the spot is from 16s. per lb.; *syvestris*, 9s. Siberian (*abietis*), 10s. 6d.

THYME.—B.P.C. is about 9s. 6d. per lb.

FIGHT AGAINST TROPICAL DISEASES IN AFRICA

Report by Colonial Research Council

IN lepromatous cases of leprosy in Nigeria no case of clinical relapse has been seen by Colonial Research Council workers during the year 1952-53 among patients who have continued to be treated with sulphones, chiefly diamino-diphenyl sulphone (Dapsone). Bacteriological relapse has occurred in a few lepromatous cases, but unexpectedly has been more common in tuberculoid cases. There is no indication, however, that relapse will constitute a serious problem. The results are contained in the Council's report for the year (H.M. Stationery office, price 7s. 6d.).

Thiosemicarbazone Studies

Studies of paracetamidebenzaldehyde thiosemicarbazone (TB1) in treatment have continued in 160 patients over twenty-seven months. The good results have merited the following observations: TB1 is as effective as sulphone, and may be superior in some ways. A serious toxic effect, acute agranulocytosis, has been seen in three of 160 cases. The complication appears during the first six weeks or not at all. Apart from this, TB1 is well tolerated, in most cases rather better than sulphones. The clinical and bacteriological response has been good, and some patients have already been discharged clinically inactive and bacteriologically negative. Relapse has not yet been seen. Treatment, however, must be given at least once daily, and this fact, as well as the acute agranulocytosis seen, makes TB1 less widely practicable than Dapsone. Its cost is higher, too. TB1 is useful in those who become allergic to or have difficulty with sulphones. TB1 can be regarded as a practicable treatment for leprosy, though close medical supervision during the first few weeks is advisable. There was no clear cut evidence of value of isoniazid in leprosy alone or in combination with other drugs.

Local Use of Cortisone

Acute manifestations of leprosy including lepromatous and tuberculoid reaction, neuritis, iritis, and cases of allergic sulphone dermatitis were readily controlled by treatment with the adrenocorticotrophic hormone (ACTH) and cortisone, but there was grave danger of aggravating the underlying disease by the treatment. However, in sulphone sensitivity, with drug fever, dermatitis, and hepatitis; and, in acute and subacute leprosy eye inflammation; the local use of cortisone appears to be "effective and safe," and is to be preferred to injection. Otherwise hormone treatment of leprosy is usually contraindicated.

Tuberculin and lepromin tests were done in 359 healthy persons. The findings have given strong evidence that a positive tuberculin test (produced by a tuberculous infection) is usually accompanied by a positive lepromin test presumably due to the same cause, and have confirmed that B.C.G. given to healthy persons who are lepromin- and

tuberculin-negative usually makes them both lepromin- and tuberculin-positive. The evidence suggests that B.C.G. should possibly or probably be of value in prophylaxis. Only a small amount of supporting experimental evidence is yet available.

For combating goitre, a new grade of vacuum salt, dendritic salt, has recently been introduced into the West African market; it can be supplied iodised more cheaply than the uniodised coarse salt now in use, which requires more manual labour in its preparation.

Measures Against Trypanosomes

In Sierra Leone a scheme for the protection of some 2,500 inhabitants of

a circumscribed locality where no other anti-trypanosome measures are in force using pentamidine, prophylactically, has been operative for nine months. No new case has been reported among those receiving the drug whereas nine new cases occurred in controls who did not receive the drug. Preliminary experiments with new drugs "528" and Ethidium bromide (2:7-diamino-9-phenyl-10 ethyl phenanthridinium bromide) have so far shown that the compounds have "marked" trypanocidal activity. In East and West Africa supplies of Ethidium bromide are being made available for trials in animal trypanosomiasis.

NATIONAL RESEARCH

Its Development in 1952-53

THE report of the National Research Corporation for the year July 1952—June 1953, just published (H.M. Stationery Office, ninepence) shows that the projects which were under development include the production of hecogenin (a starting material for the synthesis of cortisone) from sisal. The method is sufficiently advanced for contractual arrangements for increased supplies to have been made.

Extraction by Ion-exchange

Utilisation of an ion-exchange process for a natural-product extraction has been worked out by the Food Investigation Organisation of the Department of Scientific and Industrial Research and the rights assigned to the Corporation. In collaboration with the Department and two industrial firms, a

pilot plant has been erected and has just commenced to operate.

In another sphere a Burns *analgesic inhaler* for the administration of trileone and other volatile analgesics, the invention of Dr. Burns (Research Fellow in Anaesthetics at Guy's Hospital) has been developed in prototype form and a number are about to be delivered for clinical trials.

A number of resin-based formulations containing insecticides have been proposed by a Colonial Office Research Unit and have been the subject of extended trials by the Agricultural Research Council. The formulations have been made the subject of patent applications in the U.K. and many overseas countries. Licence agreements have been made by the Corporation with several British manufacturers.

FINE CHEMICALS GROUP

Conversazione

BY courtesy of the directors of the Wellcome Foundation, Ltd., the Fine Chemicals Group of the Society of Chemical Industry held a conversazione at the Wellcome Research Institution, London, on November 13. DR. D. E. WHEELER (joint managing director of the Foundation) welcomed members and their guests who visited the historical medical library and museum of medical science, or stayed in the auditorium to see films and to chat. The films shown were "The Human Blood Fluke," "Dissection of the Mosquito for Malaria Parasites" and "Wellcome Ciné-Magazine No. 1." Among items in the library that attracted attention were documents concerning the great plague, early medical advertisements and nineteenth-century song sheets with humorous references to medicine. Members found the time all too short for a thorough study of the many exhibits in the museum.

Australian University's Laboratories

Other members, by courtesy of Professor A. Albert, visited the laboratories of the department of medical chemistry of the Australian National University which are housed in the

Wellcome Research Institution, and saw some of the work in progress on the chemistry of pyrimidines and pteridines.

Fault Finding Made Painless

The group held a joint meeting with the London sections of the Society of Chemical Industry in London on November 27. The chairman (DR. W. MITCHELL) further commended the D. ummond Memorial Fellowship Fund Appeal to members of the group and said that the subscription list would remain open until the end of the year. MR. A. L. BACHARACH (Glaxo Laboratories, Ltd.) then gave a lecture entitled "Writing Wrongs," in which he dealt with abuses of English in writing, with examples principally from the writings of scientists. He illustrated his talk with lantern slides of quotations ("natural products") and made-up passages ("synthetic products"). His subject headings included propositions about prepositions, precepts about pronouns, singular plurals, vicious verbs, and "whichery."

The spirited discussion that followed carried the meeting on to a late hour and the chairman eventually had to cut it short.

TRADE MARKS

From the "Trade Marks Journal," December 9

- For infants' foods (5)
ENNA, 721,746, by Enna, Ltd., Greenford.
- For liver and health salts (5)
HEALTHENE, 721,886, by Scottish Co-operative Wholesale Society, Ltd., Glasgow.
- For medicated ointments, antiseptics and disinfectants (5)
PANACEL, 722,634, by Milton Antiseptic, Ltd., London, N.7.
- For insecticides and fungicides (5)
MALAFID, 723,390, by Plant Protection, Ltd., Yalding.
- For photographic apparatus (9)
IKOFLEX, IKOMAT, 718,510-12, by Zeiss Ikon, A.G., Stuttgart, Germany.
- For baby soothers, feeding bottles, rubber teats, medical syringes and teething rings (10)
ENNA, 721,748, by Enna, Ltd., Greenford.
- For comb cases, and combination drinking flasks and cups (21)
LEATHERSMITH, B710,152, by T. J. & J. Smith, Ltd., London, S.W.19.

From the "Trade Marks Journal," December 16

- For fertilisers (1)
COMPOSTMUS, 721,899, by Seamus, Ltd., Bristol. WONDAFERT, 723,499, by Merseyside Chemical & Fertiliser Co., Birkenhead.
- For non-medicated toilet preparations (3)
AMANTIN, 714,621, by Hamol A.G., Zurich, Switzerland.
- For all goods (3)
CYCLOL, B718,558, by Cyelo Chemicals, Ltd., London, W.C.2.
- For all goods, excluding soap, perfumes, toilet preparations, cosmetic preparations and dentifrices (3)
SOFIT, 722,566, by Reckitt & Colman, Ltd., Hull.
- For pharmaceutical preparations (5)
HEPAMINO, B701,721, by Evans Medical Supplies, Ltd., Liverpool. 10-HOUR COLD CAPSULES, 10-HOUR INFLUENZA MIXTURE, B705,293-94, by Cupal, Ltd., Blackburn. ANDROSTALYNE, 718,633, by Les Laboratoires Français de Chimiothérapie, Paris, S.A., France. DORCON ANIMAL FEED SUPPLEMENTS, 721,718, by Dorset Concentrates and Minerals, Ltd., Dorchester. ACIDARM, 722,047, by C. H. Boehringer Sohn, Ingelheim-am-Rhein, Germany. HI-VITE, 722,665, by Boots Pure Drug Co., Ltd., Nottingham. MAGEAL, 723,214, by Gilbert Roberts Lane, Gloucester. ADVITACON, 723,270, by Advita, Ltd., London, E.C.4.
- For preparations of yeast for veterinary use (5)
VETZYME, 719,706, by Phillips Yeast Products, Ltd., London, N.W.10.
- For medicated preparations for the treatment of the scalp (5)
CURTONE, 719,780, by the Curetone Manufacturing Co., Swansea.
- For hormone preparations (5)
HORMOSAN, 721,275, by Skelton Export Co., Ltd., London, W.1.
- For all goods (5)
BROMASEN, 721,588, by The Wellcome Foundation, Ltd., London, N.W.1. GAMBARAN, 721,999, by Astawerke, A.G., Chemische Fabrik, Westphalia, Germany. TOPATAR, 722,354, by Sharp & Dohme, Ltd., Hoddesdon. BARDASE, 722,451, by Parke, Davis & Co., Detroit, U.S.A.
- For medicated toilet paper, paper towels and paper towelling (5)
ELTEX, 722,232, by George H. Elt, Ltd., Worcester.
- For insecticides and fungicides (5)
FLYPEL, 722,440, by Imperial Chemical (Pharmaceuticals), Ltd., London, S.W.1. LODANE, 723,572, by Thomas Kerfoot & Co., Ltd., Bardsley.
- For disinfectants and sanitary substances (5)
FWISH, 723,039, by New Hygiene, Ltd., London, N.7.
- For analgesic tablets (5)
CALPON, 723,455, by Calmic, Ltd., Crewe.

PRINT AND PUBLICITY

Medical Propaganda

- Manufacturers' leaflets, folders, booklets, etc., directed to doctors but available to pharmacists.
- ABBOTT LABORATORIES, LTD., Perivale, Greenford, Middlesex: "Erythrocin" (16-p. booklet); "Selsun" (12-p. booklet).
- ORGANON LABORATORIES, LTD., Brettenham House, Lancaster Place, London, W.C.2: "Methyltestosterone," "Neo-Hombreol" (8-p. booklets); "Menformon and Dimenformon Ointments," "Neo-Hombreol Ointment" (4-p. leaflet).
- PARKE, DAVIS & CO., LTD., Staines Road, Hounslow, Middlesex: "Mereloran" ("service to pharmacists" card).
- PHARMACEUTICAL LABORATORIES GEIGY, LTD., Rhodes, Middleton, Manchester: "Taoryl for the Relief of Cough" (4-p. leaflet).
- PHARMACEUTICAL SPECIALITIES (MAY & BAKER), LTD., Dagenham, Essex: "Nivaquine" (second edition of 56-p. booklet); "M.&B. Water Soluble Contrast Media" (seventh edition of 84-p. booklet); "Ansolsen" (first edition of 32-p. booklet); "Flaxedil" (third edition of 48-p. booklet).
- ROCHE PRODUCTS, LTD., Welwyn Garden City, Herts: "Marcoumar" (blotter); "Marcoumar and Vitamin K₁, Roche" (4-p. card); "Ronicol" (4-p. leaflet).
- G. D. SEARLE & CO., LTD., 17 Manchester Street, London, W.1: "Dramamine" (24-p. booklet); "Diodoquin" (16-p. booklet); "Vaginitis, its Diagnosis and Treatment," "Modern Medicinal Management of Peptic Ulcer" (24-p. booklets); "Labyrinthine Dysfunction in Motion Sickness and Vestibular Disorders" (28-p. booklet).
- SHARP & DOHME, LTD., Hoddesdon, Herts: "Effective Antisepsis of the Mouth and Throat—Sucrets" (4-p. leaflet).
- THE BRITISH DRUG HOUSES, LTD., Graham Street, City Road, London, N.1: "Mepilin" (blotter); "Terein For the Relief of Mild Forms of Pain"; "Pernivit for Chilblains" (4-p. leaflets).
- THE DISTILLERS CO. (BIOCHEMICALS), LTD., Fleming Road, Speke, Liverpool, 19: "Mixtamycin" (4-p. leaflet); "Streptaquin" (2-p. leaflet).

Booklets and Leaflets

- JOSEPH CROSFIELD & SONS, LTD., Warrington, Lancs: "Crosfield Detergents in Bottle Washing," pp. 48. Intended as a reference for all concerned with the running of bottle-washing machines.
- HICKSON & WELCH, LTD., Ings Lane, Castleford, Yorks: "Intermediates for Dyestuffs, Colours, Insecticides, Pharmaceuticals and Other Chemicals," pp. 38. The new brochure—No. 80a—succeeds the company's brochure No. 80 produced about two and a half years ago. It is pointed out in the introduction that the company has entered a completely new field in the large-scale manufacture of optical whitening agents and has made improvements in their colour intermediates range. A greater variety of insecticides are also being made.
- HILGER & WATTS, LTD. (Hilger Division), 98 St. Paneras Way, London, N.W.1: "Microwave Spectroscopy," by W. Gordy, W. V. Smith, and R. F. Trambarulo, 9 x 6 in., pp. 460, illustrated, 64s. net. The authors aim to provide a large amount of very precise information obtained to date through Microwave spectroscopy; to facilitate the analysis and interpretation of the microwave data so far accumulated; to make it easy for the beginner to familiarise himself with the instruments and experimental methods used in microwave spectroscopy.—"Hilger Publications On Optical Methods in Research and Industrial Control Laboratories," booklet No. C.H. 335/5, September 1953, pp. 12.
- SOREX (LONDON), LTD., 6 Henrietta Place, London, W.1: "Progress in Rodent Control," pp. 26.

THE THOMAS HILL ENGINEERING CO. (HULL), LTD., 247 Beverley Road, Hull, Yorks: "Olympian Bottle Washing Machine," pp. 4.

YARDLEY & CO., LTD., 33 Old Bond Street, London, W.1: "Junior Miss," 8½ x 6½ in. Pp. 62. Third edition, 1s. 6d.

Price Lists

BRITISH SCHERING, LTD., 229 Kensington High Street, London, W.8: "Provisional Retail Price List," December 1953, Pp. 12.

Catalogues

NEVILLE BROWN & CO., LTD., 77 Newman Street, London, W.1: "Let the Picture Tell the Story," Pp. 24. Aldis visual aid equipment.

Periodicals

- ABBOTT LABORATORIES, LTD., Perivale, Greenford, Middlesex: *What's New*, No. 12, Pp. 16.
- GLAXO LABORATORIES, LTD., Greenford, Middlesex: *Glaxo Topics*, No. 2, November 1953, Pp. 12.
- WILLIAM MASON & SON, LTD., Gelderd Road, Leeds, 12: *Shop*, December 1953, Pp. 12.

Advertising Campaigns

- THOMAS CHRISTY & CO., LTD., North Lane, Aldershot, Hants: Dr. Page Barker's seurf and dandruff lotion, and D.43 shampoo.
- THOMAS KERFOOT & CO., LTD., Vale of Bardsley, Ashton-under-Lyne, Lancs: Vapex rub in *Sunday Pictorial*, *Daily Mirror*, *Reveille*, *Woman's Own*, *Woman's Weekly*, and *Picture Post*.

WILLS

- MR. F. R. ASHURST, M.P.S., 30 Westbrook Road, Swinton, Lancs, left £4,107 (£3,654 net).
- MR. E. J. BURROUGH, 7 Downs Avenue, Epsom, Surrey (a director, James Burrough, Ltd.), left £20,306 (£19,120 net).
- MR. J. H. FAIRBAIRN, M.P.S., Pharmacy House, 86 St. Johns Road, Corstorphine, Edinburgh, left £3,220.
- MR. M. MOORHOUSE, M.P.S., 64 Templenew-sam Road, Halton, Leeds, left £7,686 (£7,597 net).
- MR. W. E. MORRIS, M.P.S., 2 Hill Farm, The Racecourse, Oswestry, Salop, left £2,148 (£2,108 net).
- MR. J. S. REOCH, M.P.S., 14 Kelso Street, Dundee, left £11,101.
- MR. C. W. ROYSTON, M.P.S., Chez Nous, Whittingham Lane, Goosnargh, Preston, Lancs, left £2,998 (£2,933 net).
- MR. ALLWOOD SIMPSON, M.P.S., 40 Mottram Road, Stalybridge, Ches, left £14,949 (£14,520 net).
- MR. E. H. SLATER, M.P.S., Kootenay, Beulah Road, Epping, Essex, left £17,302 (£16,251 net).
- MR. N. SPENCER, Ph.C., 78 Southbank Road, Coventry, left £701 (£591 net).
- MR. B. A. TUSCHER, 19 Uplands Way, Riverhead, Sevenoaks (proprietor of B. Albert Tusher, produce merchants, 69 Mark Lane, London, E.C.3), left £2,909 (£2,238 net).
- MR. R. WALTON, The Hollies, Castle Hill Terrace, Maidenhead, who qualified as a chemist and druggist in 1898, left £8,758 (£8,706 net).
- MR. F. WHALLEY, M.P.S., 98 Marlborough Road, Hyde, Ches, left £9,201 (£9,136 net).
- MR. T. W. WHITE, M.P.S., 6 Cavendish Drive, Newton Mearns, Renfrews, left £13,920.

COMING EVENT

Items for inclusion under this heading should be sent in time to reach the Editor not later than first post on Wednesday of the week of insertion.

Tuesday, December 29

SHEFFIELD BRANCH, PHARMACEUTICAL SOCIETY, Nether Congregational Church, Norfolk Street, Sheffield. Christmas party for children of age five years or less, at 3.30 p.m.; and for those older than five years, at 4.30 p.m.

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Due to increased demand, economies in the manufacture of Butazolidin have been effected and price reductions to the pharmaceutical profession and to hospitals will therefore operate from January 1st, 1954.

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Boxes of 25	50/11
Boxes of 50	96/-
Boxes of 100	182/10

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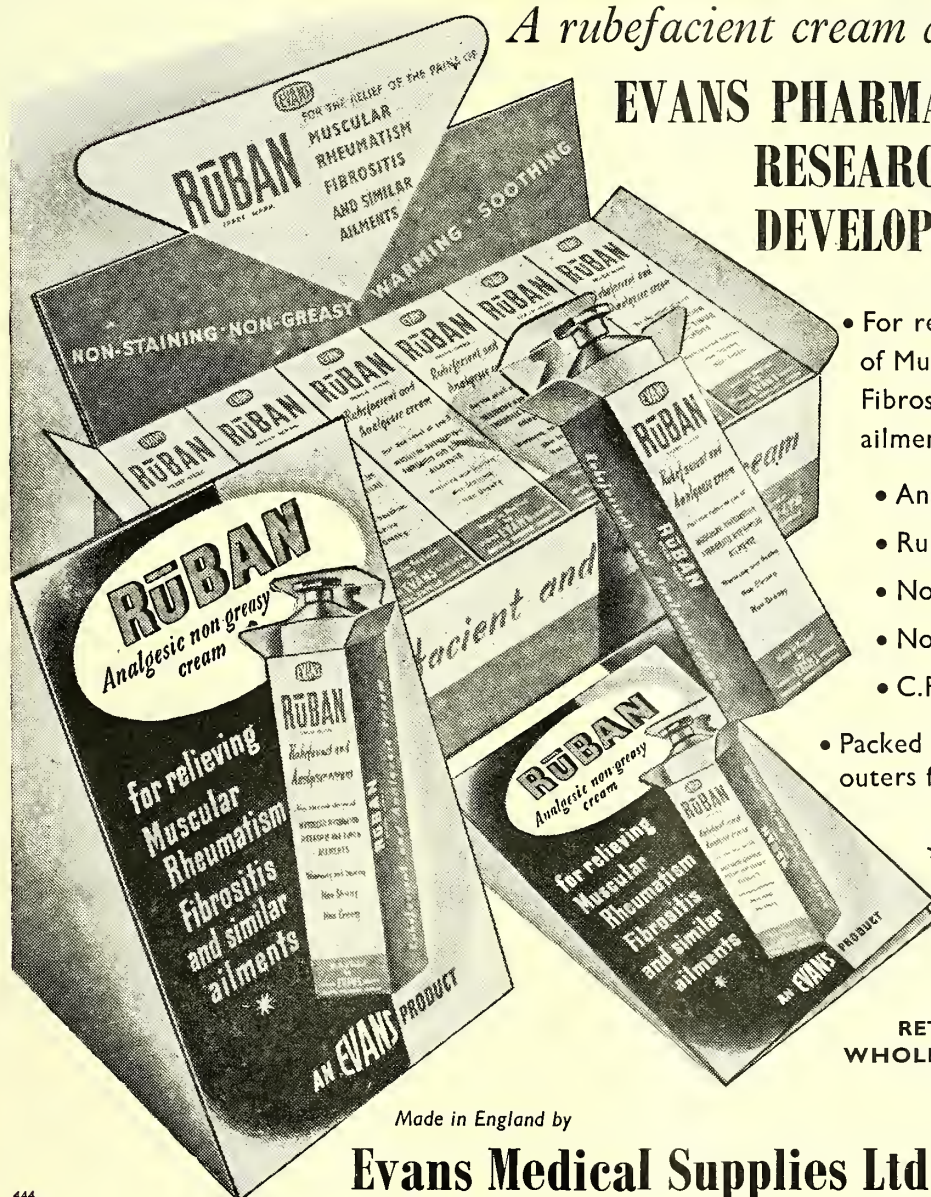
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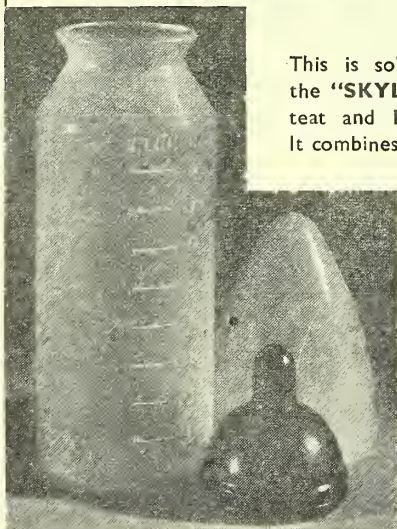
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(continued overleaf)



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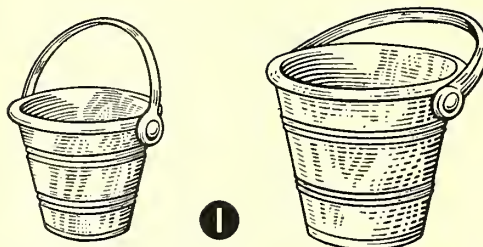
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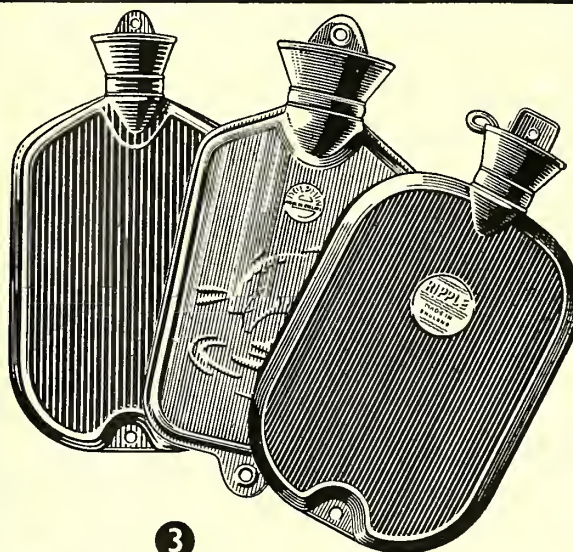
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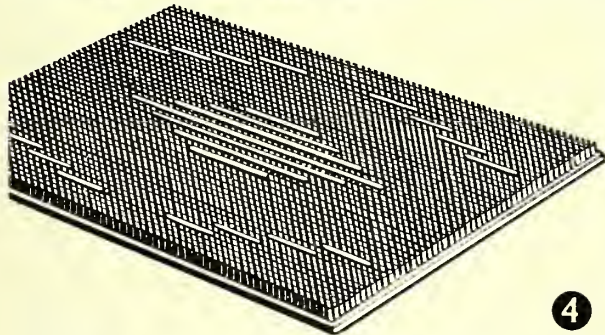
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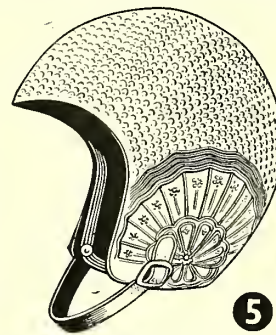


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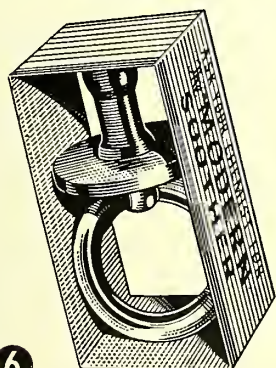


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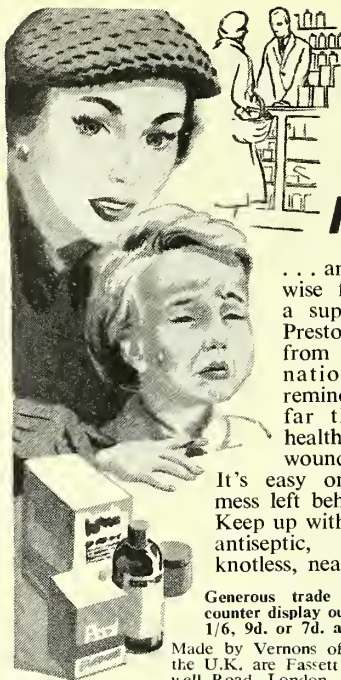
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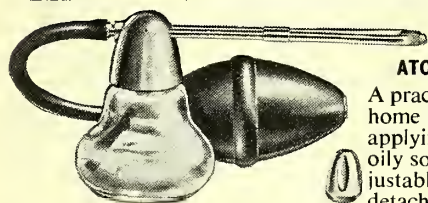
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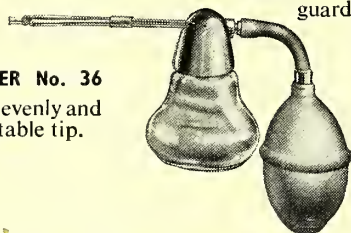


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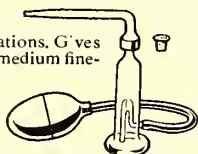
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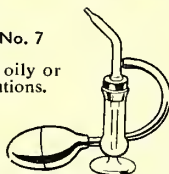
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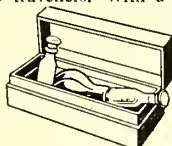
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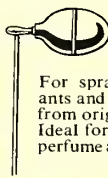


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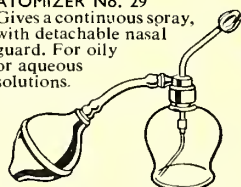
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Official organ of the Pharmaceutical Society of Ireland and the Pharmaceutical Society of Northern Ireland

Volume 160

December 26, 1953

No. 3853

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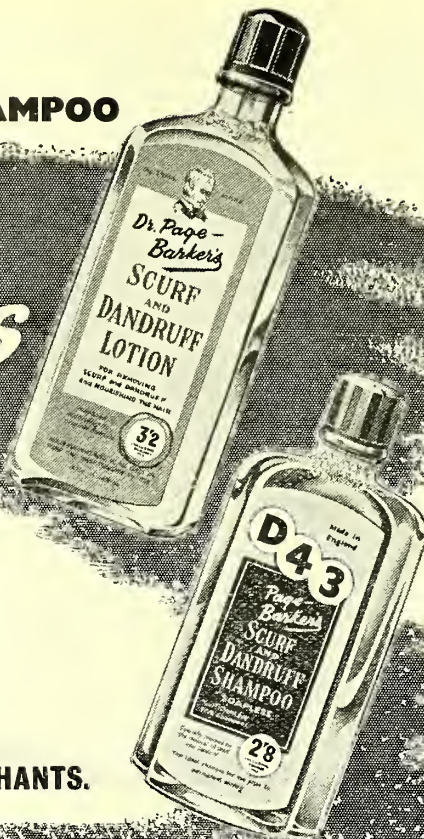
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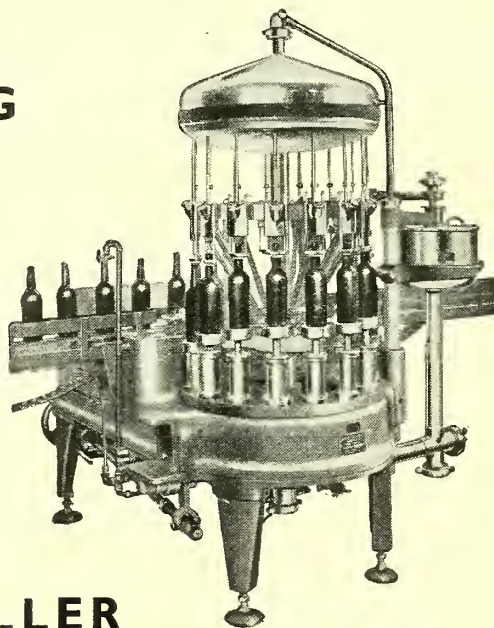
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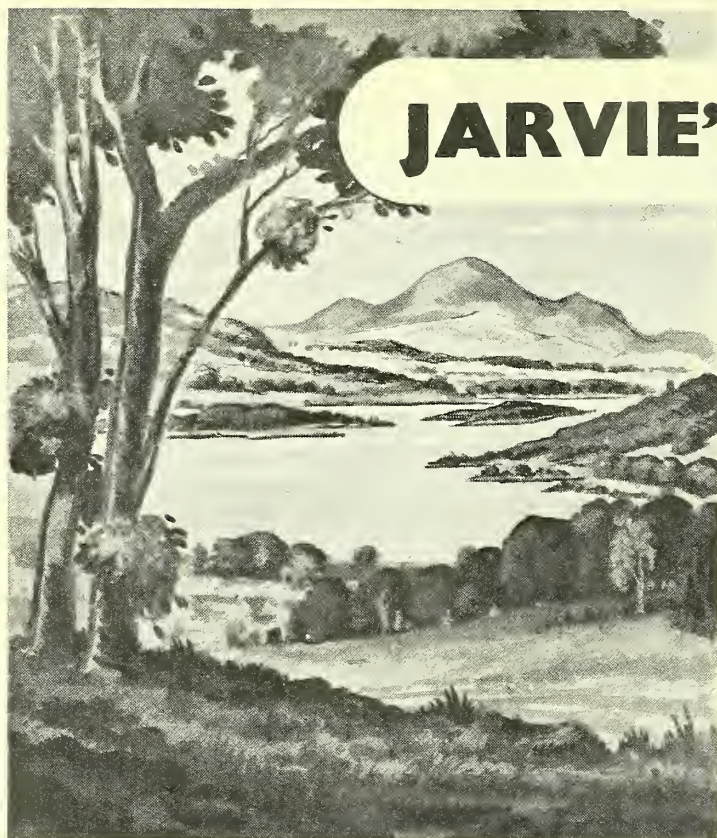
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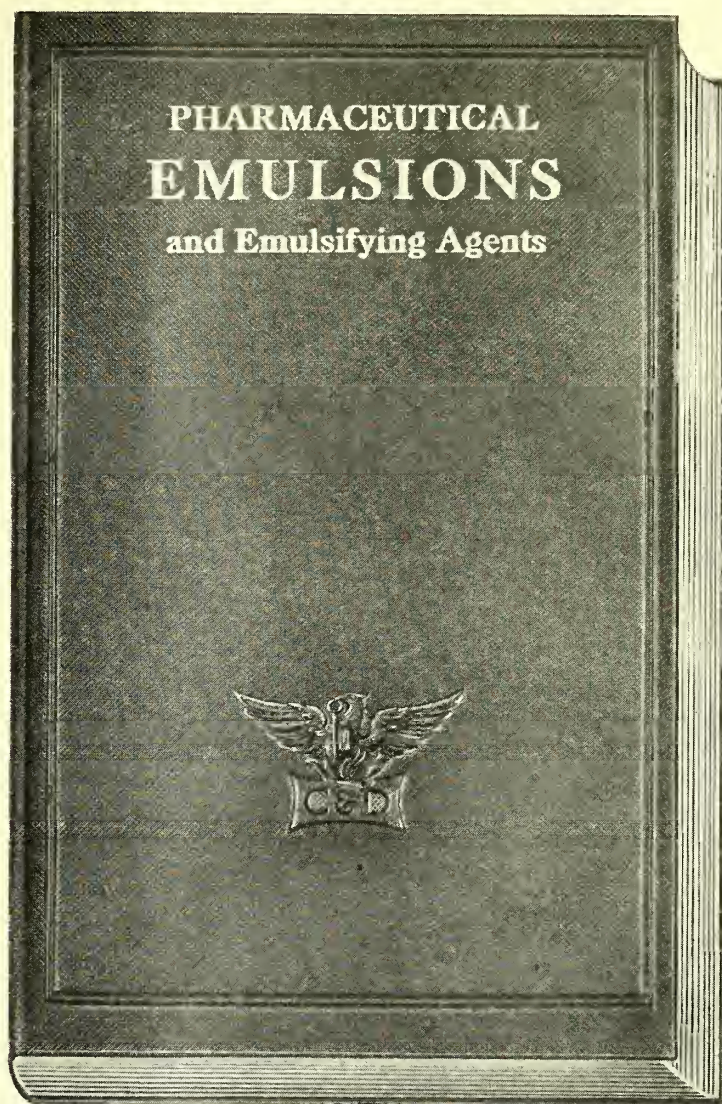
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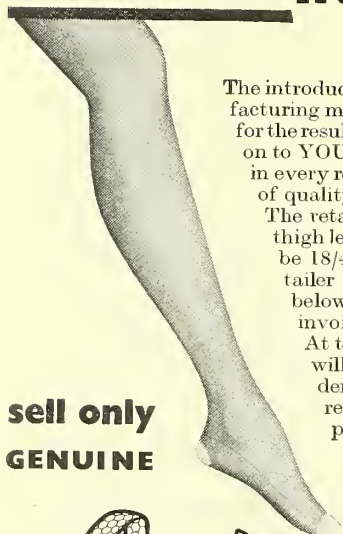
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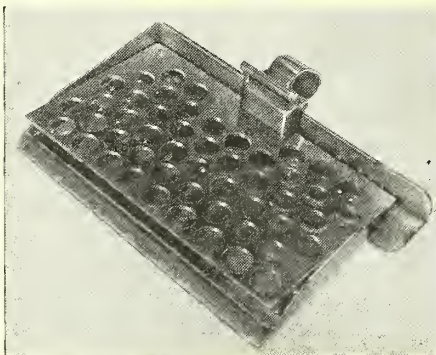
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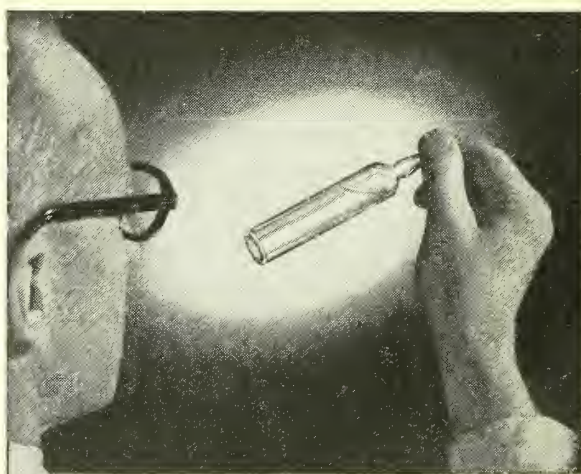
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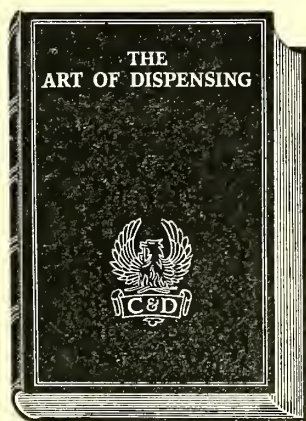
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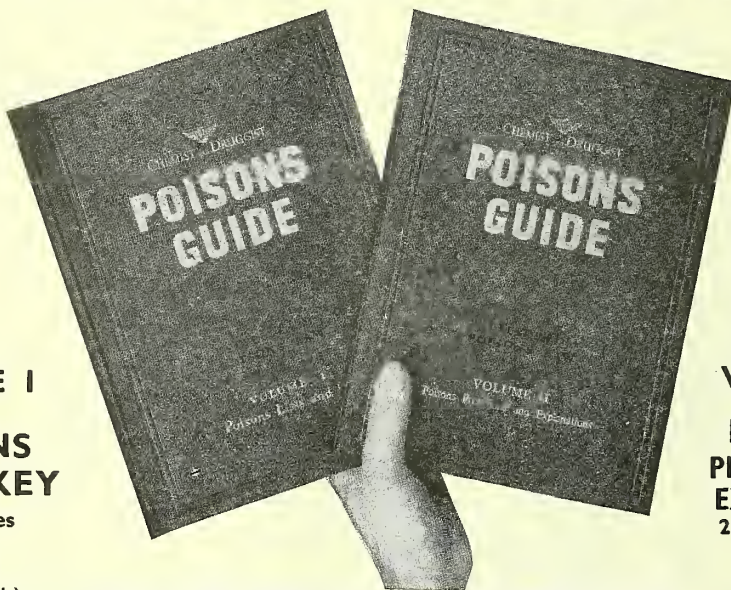
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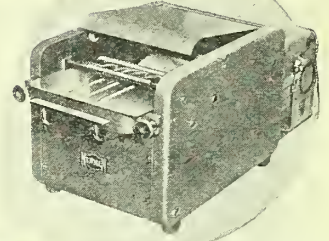
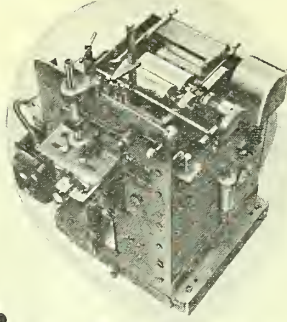
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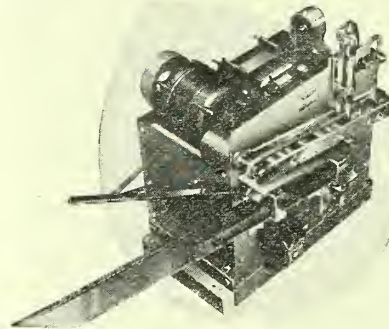
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